2nd World Forum on Urban Forests 2023







Cecil Konijnendijk

NBS Institute



2nd World Forum on Urban Forests 2023







Wake up and unite!

Hope in the horizon The Rise of Resilient Cities



Presented by

Kai Lintunen
Head of International Communication
Finnish Forest Association

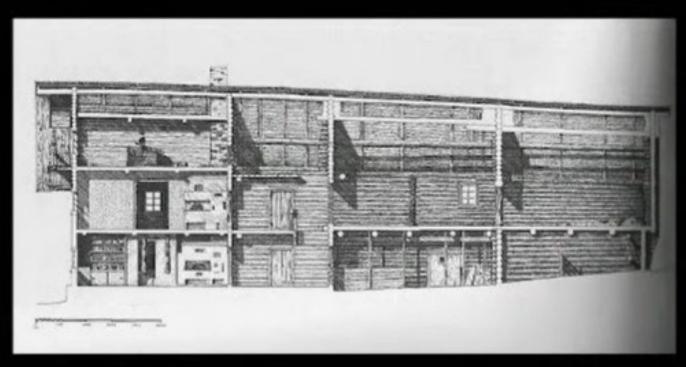
Team Leader, FAO-UNECE Forest Communicators Network



wood construction and infrastructure complement the greening of cities



Architecture as a site specific human expression - compared to language/ dialect



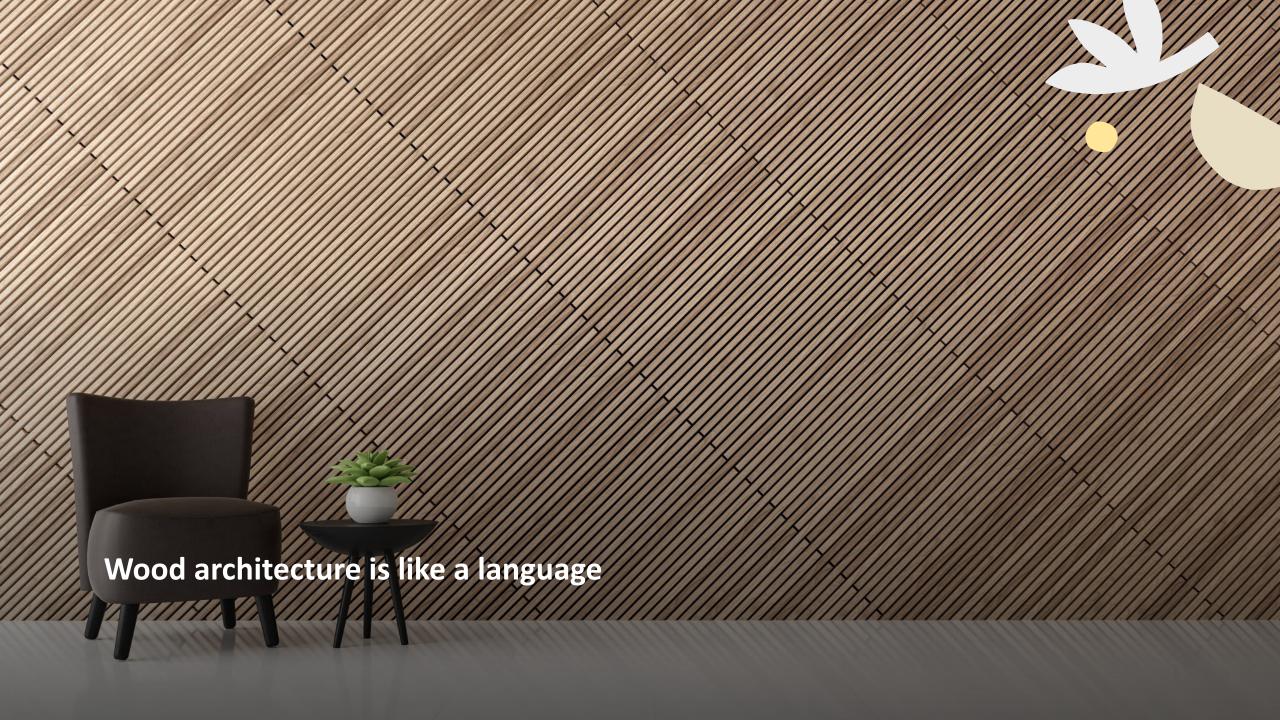


Today: 6000 languages, 5000 with less than 100.000 speakers

Future: 1000 languages left in 100 years

Past: 60.000 languages 100 years ago

Loss of Human Biodiversity



Accessibility - Efficiency

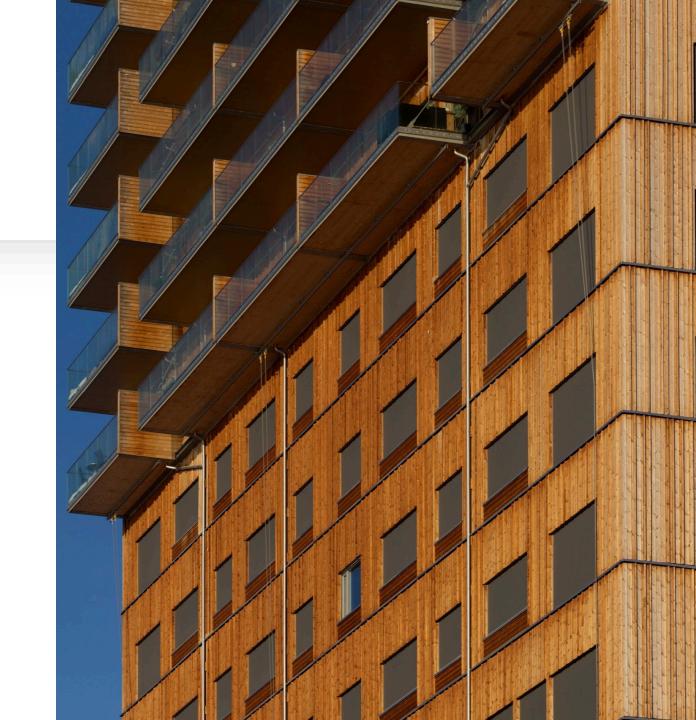
- What is local in the environment should be accessible to everyone regardless of age, abilities, wealth and cannot be virtualized
- →urban green and recreation

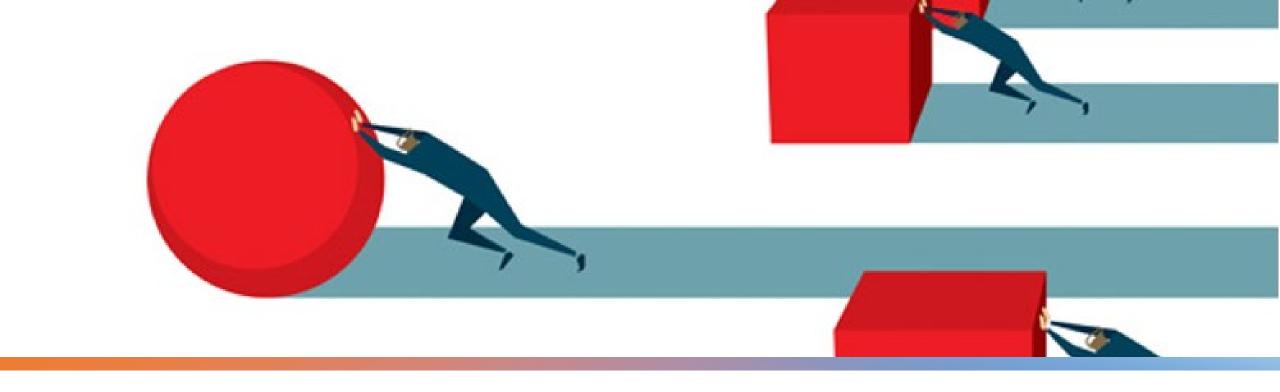
- Whole, solid but not necessarily always the most efficient environment
- Human scale, flexibility of buildings and other structures
- Speed and modularity

Connecting/coordinating wooden infrastructure and urban green is natural

Building with wood has many different identities

- Industrial building with wood can look for its own ways of expression
- There is no single, uniform way of building with wood
- Boundaries between "modern" and "traditional" can be crossed and they are often only apparent
- No use comparing building with wood to building with concrete





Eight advantages of wood construction

- Building with wood is **better for the climate**. ...
- Long-term sustainable construction. ...
- A better **insulator** than other materials...
- High strength in relation to weight. ...
- Shorter construction times. ...
- Building with wood is less noisy & less waste. ...
- Wooden buildings are healthy...
- Lighter transport...

Use of wood

resilience against

- Earthquakes
- Hurricanes
- •Snow/Rain
- •Flood
- Disease
- Heat
- Wildfire



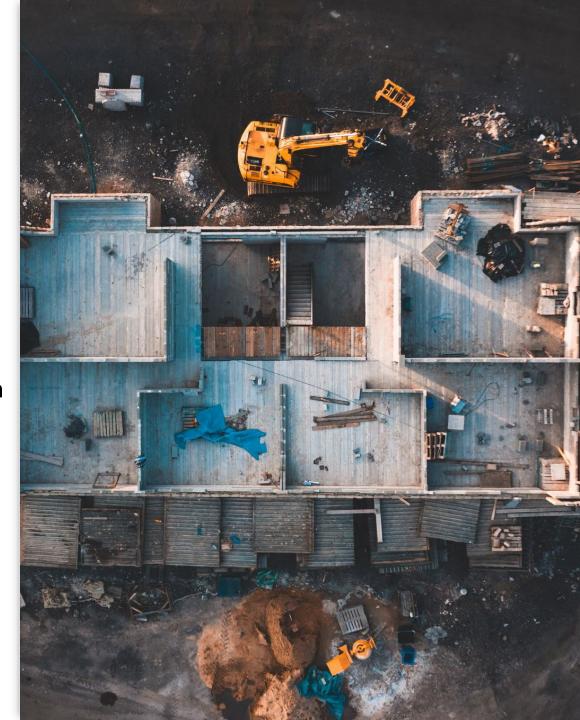


Sustainable Wood: Climate-friendly cities video



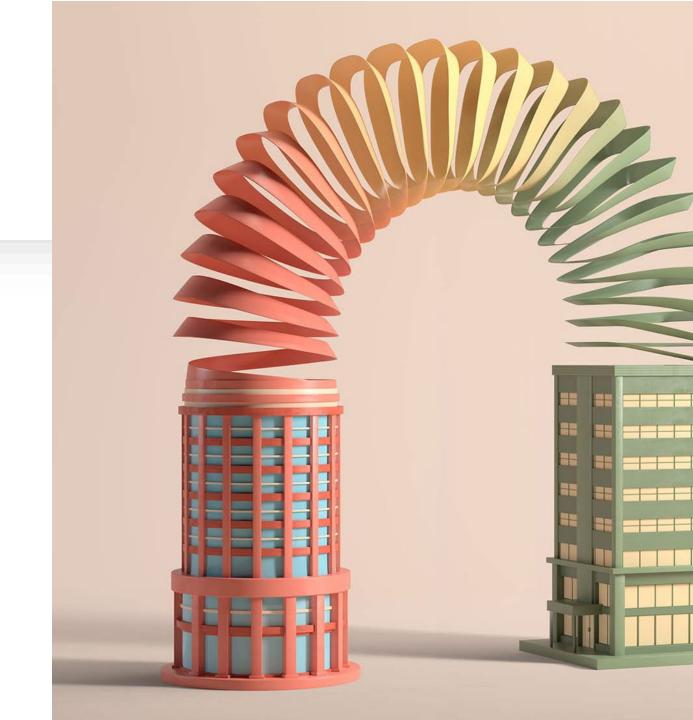
Resilient structures

- Designed to withstand and recover quickly from adverse situations with an acceptable level of functionality
- A structure built of wood withstands natural disasters with minimal damage: easier to repair and can contribute to sustainable development – it minimizes human risk, reduces material waste and lowers restoration costs



Adaptability for future uses

- Buildings which have the flexibility to change uses over their lifetime will reduce the need to demolish and rebuild new structures
- Wood structures readily adapted: ease of workability - lightweight and low density material, allows wood building systems to be cut, shaped, removed and reconfigured with ease



Renew wood vocabulary





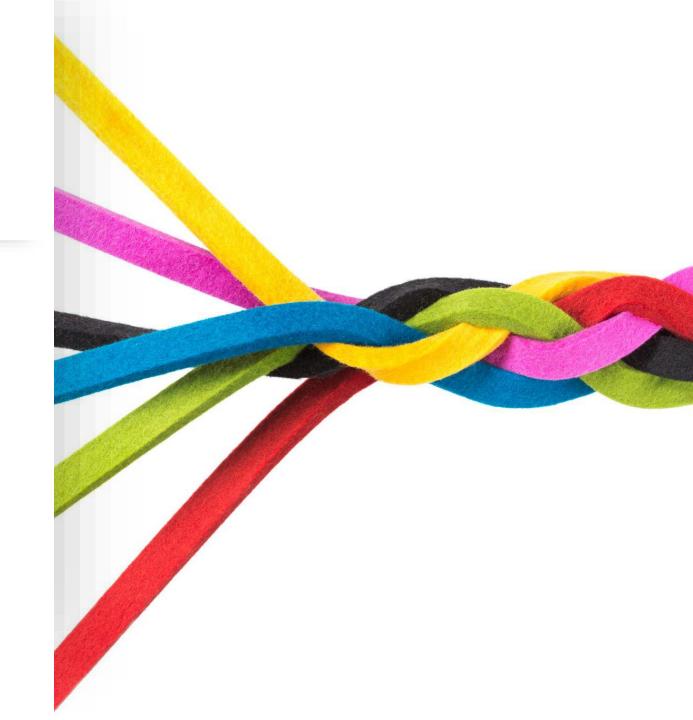






Circular material loop re-thought

- Narrowing the loop using less
- Slowing the loop using longer
- Closing the loop using again
- Regenerating the loop making cleaner / better



Two views for the future of wood

Wood is "one material among others"

- Low carbon
- Renewability
- Industrial processing
- Hybrid structures etc.

- Wood product industry
- Climate policy

Modernizing wood building

- Cityscape
- Image
- Urban structure
- New building types vs. relationship with tradition

- Role of cities
- Land use policy

Public and private players unite!

- Administration/ Authorities
- Research
- Education
- Financing
- Building companies
- Forest product companies
- Citizens

NOT MUCH AWARENESS

OF THE ADVANTAGES OF WOOD

- Energy-efficient building material with a low carbon footprint
- High heat insulation
- Climate friendly



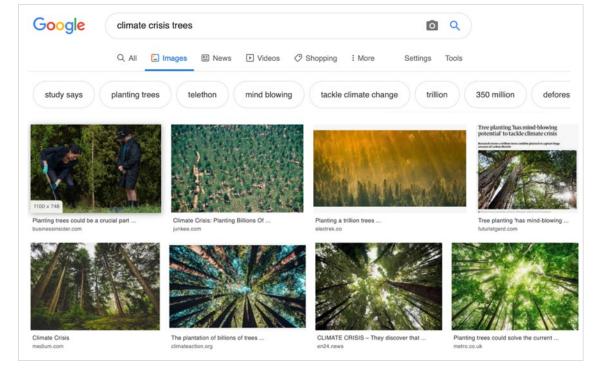


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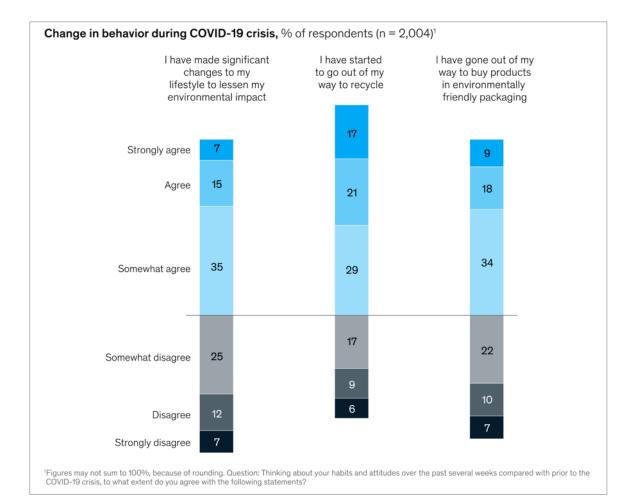
FRAME SUSTAINABLE WOOD AS A **SOLUTION**







THE TIME IS NOW

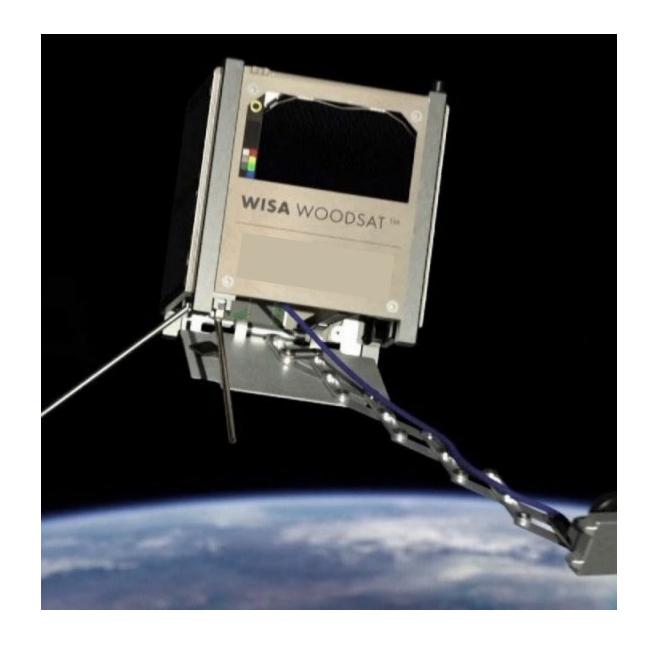


Nearly 60% of consumers have made significant changes to their lifestyles to lessen their environmental impact.

- McKinsey Research



3 INNOVATION IS ON OUR SIDE







Launch of Sustainable Wood: Housing a growing population



At it's simplest...

RETHINK THE SOLUTION. RETHINK WOOD



WOOD. NATURE'S SUSTAINABLE SOLUTION.

Thank you!

kai.lintunen@smy.fi @birdieviews 2nd World Forum on Urban Forests 2023







Cape Town's urban Forest and Resilience Journey Tamsin Faragher



2nd World Forum on Urban Forests 2023











WELCOME

Presented by

Gadwal Vijayalaxmi
Mayor, Greater Hyderabad Municipal Corporation
Hyderabad, Telangana, India

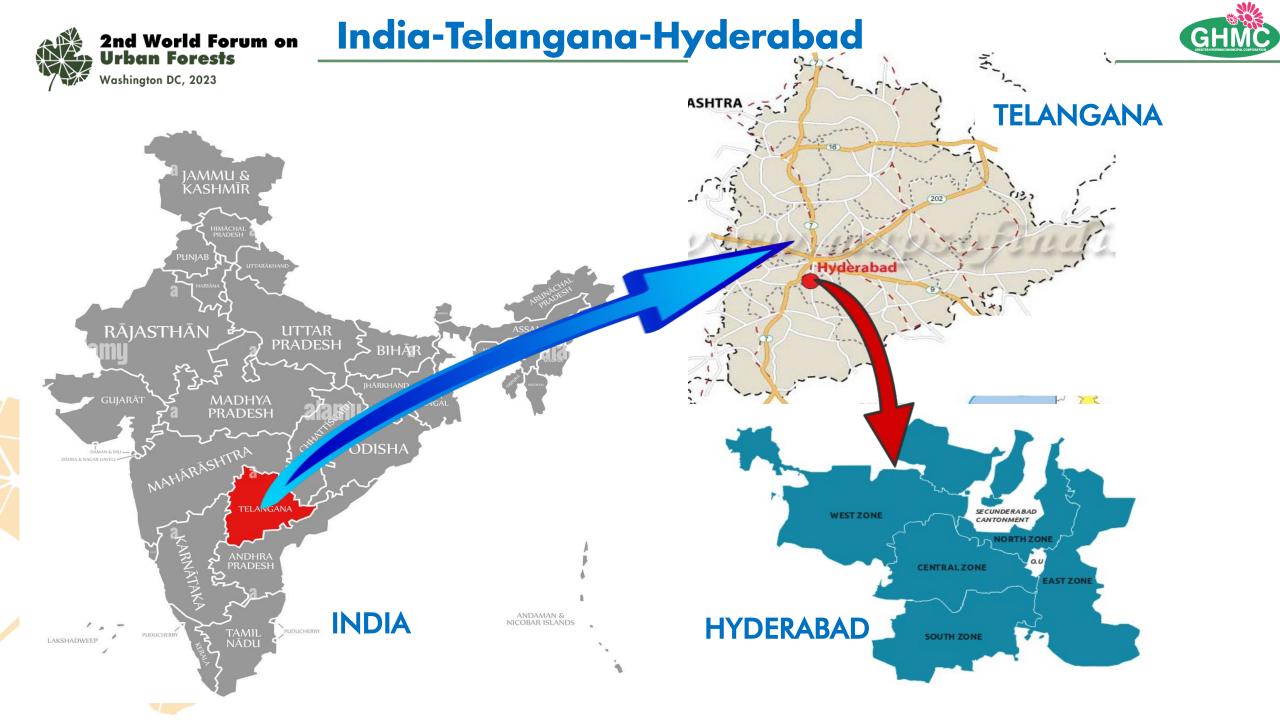




2nd World Forum on Greening initiatives in Hyderabad GHME Washington DC, 2023 Telanganaku Haritha Haram

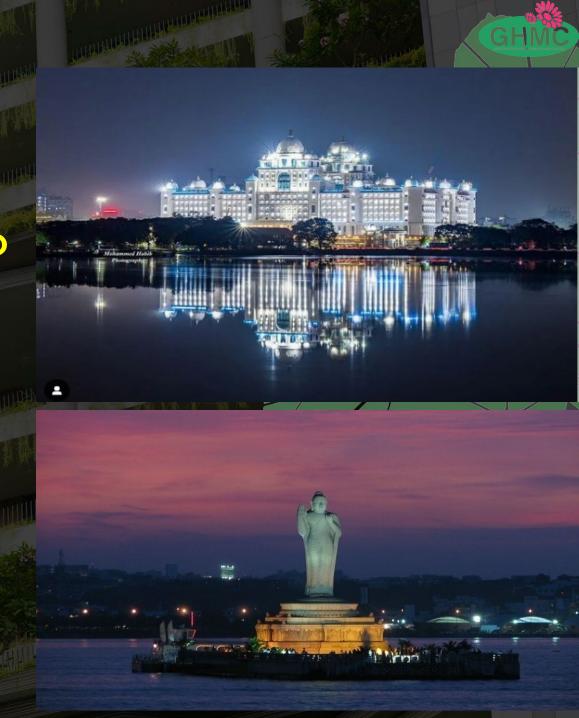






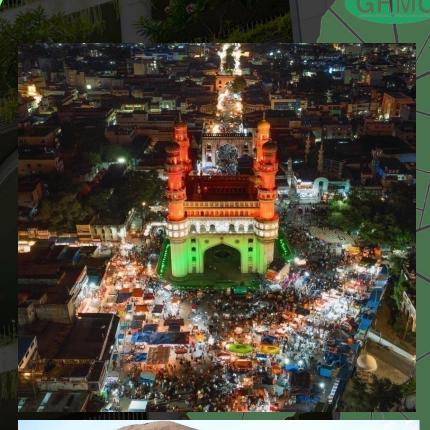
Hyderabad

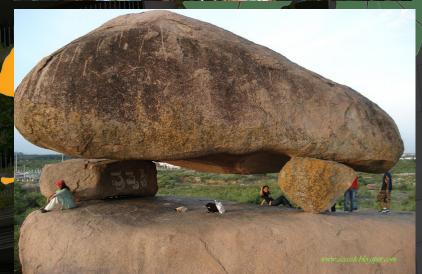
- Hyderabad is capital city of Telangana, India.
- It is World Green City and also Tree City of World.
- Best city to live in India for the fifth consecutive year in the Mercer's Quality of Living (India) Rankings – 2019
- 143rd place in the quality of living ranking announced globally.



Tree City of World & World Green City

- Hyderabad Situated on the Deccan plateau
- Most of the city has variously shaped gneissic granite rock formations which are oldest in the world.
- Largest single carved rock Buddha statue in the world
- Hussain Sagar Lake The Largest Man-Made Lake in all of Asia.
- Ramoji Film City Largest Film Studio Complex in the World
- Original home of the Koh-i-Noor
- City of pearls
- Charminar –the iconic land mark
- City of Lakes



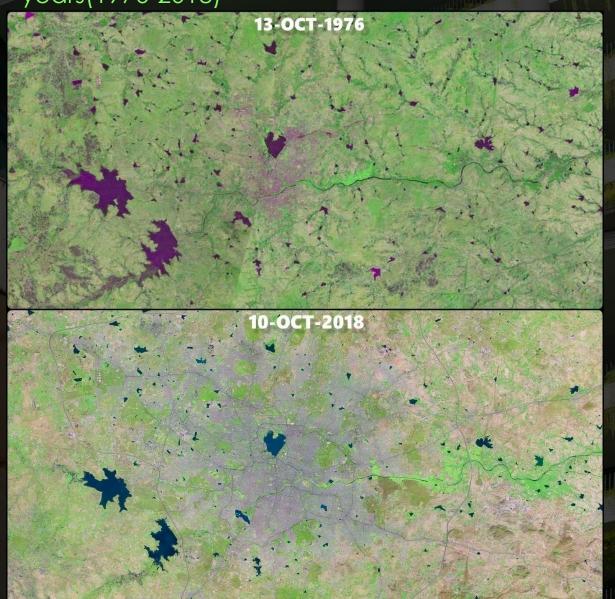




- Hyderabad City area is 250 Sq miles
- In 1950, the population of Hyderabad was 1.00 million.
- The population has grown from 3.6 million(2001) to 7.7 million (2011)
- Hyderabad's 2022 population is now estimated at 110.00 millions.
- 4th Most Populous City of India
- Average Decadal population growth rate is- 40%

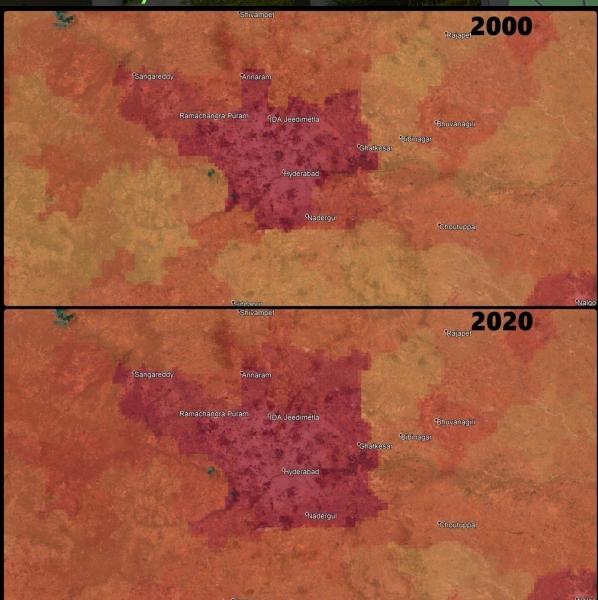


Hyderabad transformation in last 42 years (1976-2018)



□Data: Mod Landsat 1-7

Population Expansion Between 2000-2020 Around Hyderabad

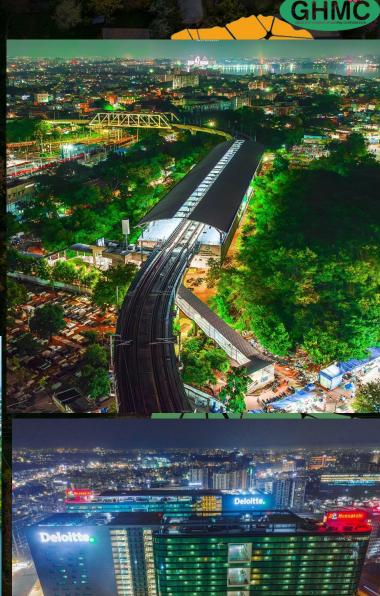


Hyderabad- Dynamic City

- The city is witnessing a rapid expansion
- Industrial boom
- Increased trade opportunities
- India's Pharmaceutical Capital
- Major IT firms like Microsoft, IBM, Google, Samsung, Dell
- Hyderabad is the world's 2nd most dynamic city





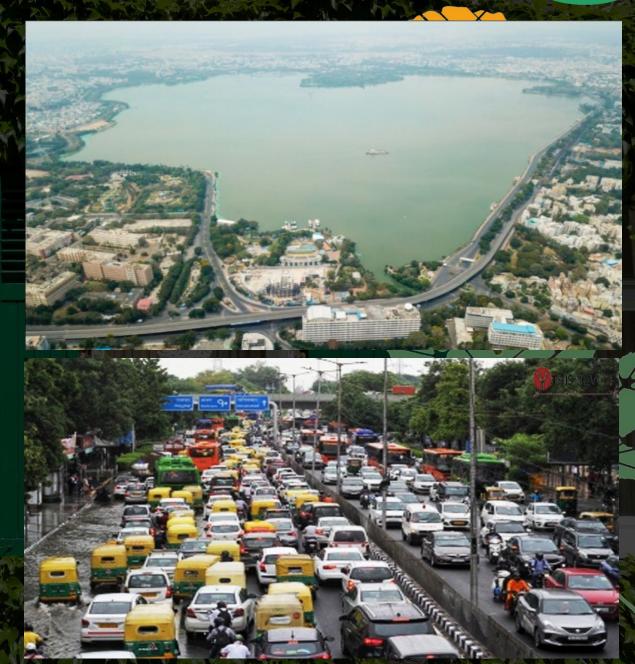




Major problems of Urbanisation



- Urban Sprawl
- Overcrowding
- Housing issues
- Unemployment
- Slums and Squatter Settlements
- Transport issues
- Water Scarcity
- Sewerage Problems
- Trash Disposal
- Urban Crimes
- Problem of Urban Pollution





Magnitude of Biodiversity of Hyderabad



- First city in India to have a City Biodiversity Index in 2012
- In spite of rapid urbanization of the city, the biodiversity is well preserved
- Three National parks located within and adjoining limits of the city
- Plant surveys initiated in 2007
 recorded c. 1500 species belonging to 730 genera and 160 families







Role of Corporation



- GHMC is involved in creation of bioaesthetic environment by developing green, beautiful & hygienic atmosphere for the citizens
- To create green lung spaces
- To maintain ecological balance and to reduce pollution levels.
- **Urban forestry** Care and management of tree populations in urban settings for improving the urban environment
- GHMC have separate Urban Biodiversity
 Wing to take up all greening activities







Why Urban Forests?



- Improving the living environment
- Pollution Control
- Water Conservation
- Mitigating Urban Climate
- Reducing The Urban Heat Island
- Improving The Quality Of Urban Living
- Reduction of Urban Flooding
- Improve human health



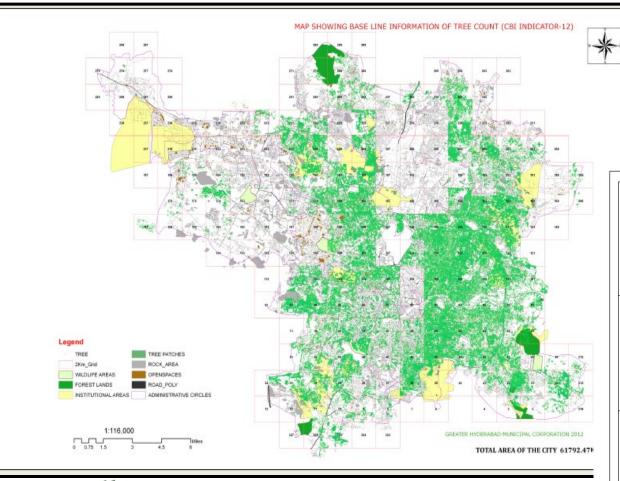


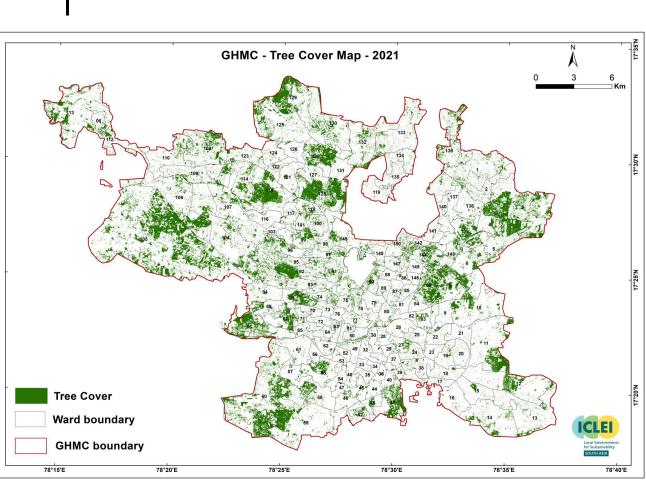




Micro Management of Tree Population









Repositories of City Biodiversity



- The city of Greater Hyderabad has 185 lakes- Wetland related biodiversity in the city.
- Musi Riverine System-24 Kilometers through core city and provides grasslands eco-system.
- 1.60 lakh acres of Reserve Forest land inside and within the radius of 25 kms from city
- About 3000 Urban public places and man-made Parks





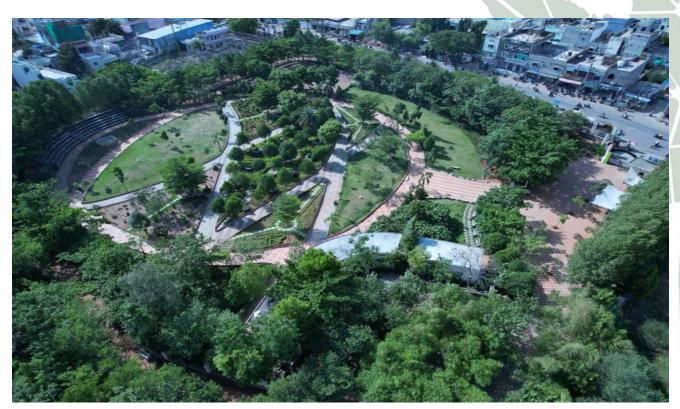
Major Parks & City Level Parks





39 Major Parks each having more than 5 Acres in extent







60 Theme Parks having various themes







2nd World Forum on Urban Forests PARKS DEVELOPED IN HYDERABAD CITY







Gandipet Park Butterfly Garden, Sanjeevaiah Park

Sanjeevaiah Memorial, Sanjeevaiah Park

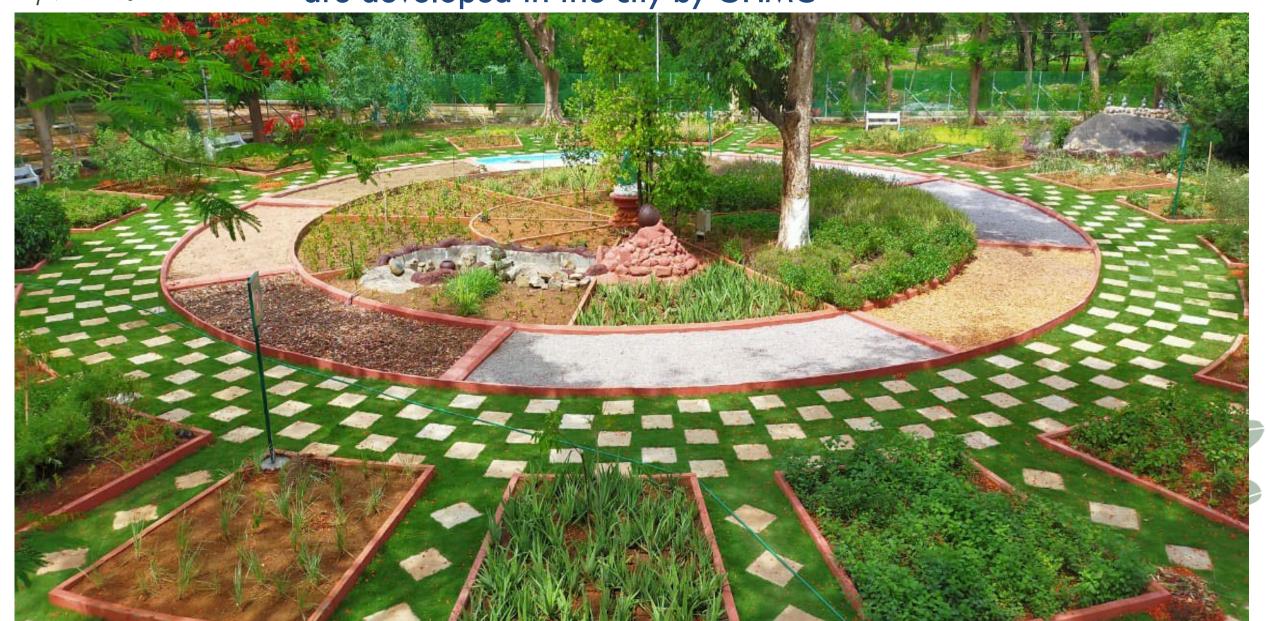
MAZE Garden Sanjivaiah park



2nd World Forum on 20 Panchatatva Parks which work on acupressure concept GHMC Urban Forests



are developed in the city by GHMC



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Colony Parks





1141 Colony parks have been developed.



760 parks are being maintained by CWAs.





- Green roofs make the most of unused space within the increasing density of our cities. It is assessed that about 50000 acres of Roof Top is available in Hyderabad City
- Plants on Roof tops are able to cool down entire cities, reducing the UHI (Urban Heat Island) effect through the daily evaporation cycle
- Terrace gardens are encouraged on subsidy & plants at free of cost benefitting 32100 house holders with 1.6 million sq mt under green roofs in last 7 years.





Central Medians



Greenery was developed in all central verges of roads with Trees & Flowering shrubs





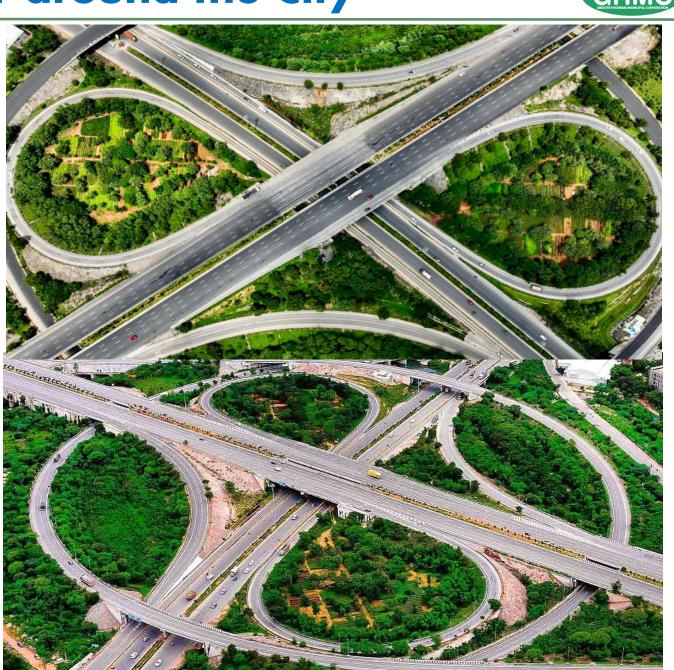




Green Buffer around the City



- Total stretch: 158Km
- 28 Radial Roads (307 Km)connects with the ORR
- Express Way is provided with Fencing
- 14 Entry and Exit Junctions
- 21 Interchange Locations
- The total plants planted on ORR are 77,35,229 Nos. as on 2022- 23



Green Flyovers





• 36 Flyovers were developed with underneath greenery



Vertical Gardens



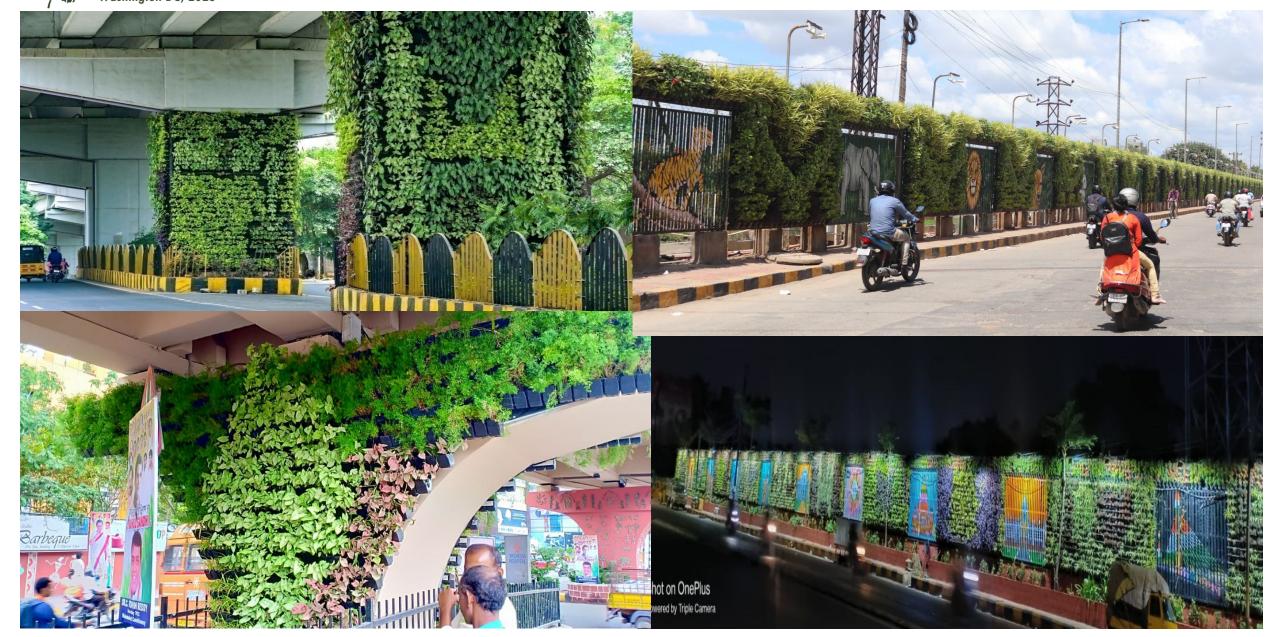
Vertical Gardens for 129 pillars under flyovers & on bridges





Vertical Gardens



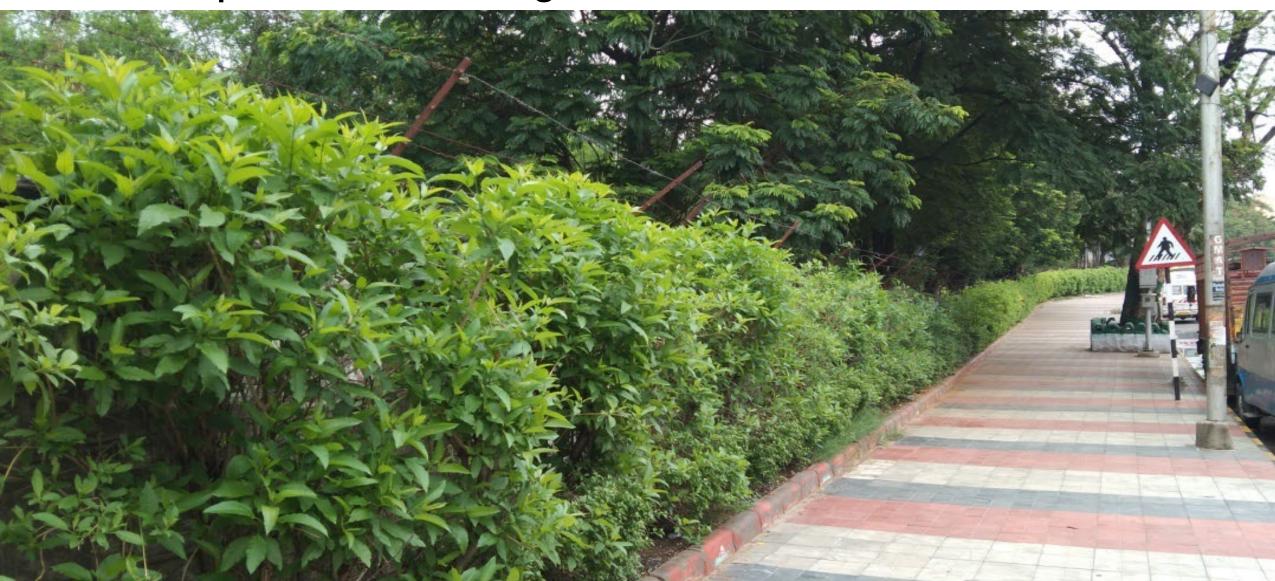




Green Curtains



Developed on road margins at 56 Locations





Lakes Restoration & Beautification



- Restoration of lakes to increase the ground water table with clean water
- Maintain the water balance in the lakes
- Improvement of Lake ecosystem
- 66 lakes are fully restored in Hyderabad city









Lake View Park, Khairatabad



Lake View park has been developed with lot of tree cover

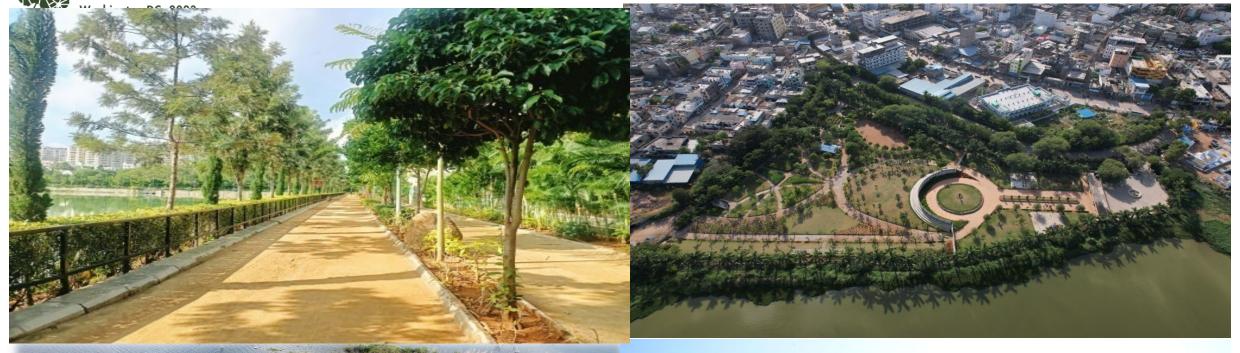
After

Before



Lakes Restoration & Beautification











Bio Diversity Conservation Efforts



- Protection of Existing Greens, wood lots and water bodies
- (30 million in 5 years) massive afforestation programme
- Dedicated tree line along all the roads
- Development of parks
- Involvement of Colony Welfare Associations in maintenance of parks
- Free distribution of saplings through 600 centrally located nurseries
- Development of Urban Parks in Forest
 Areas adjoining residential areas

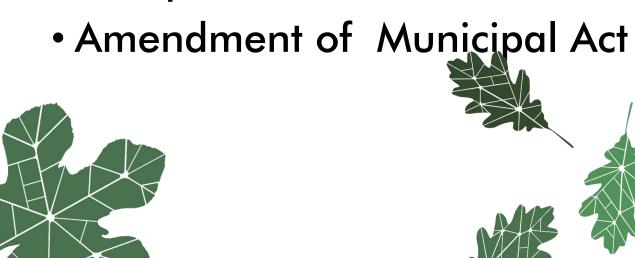


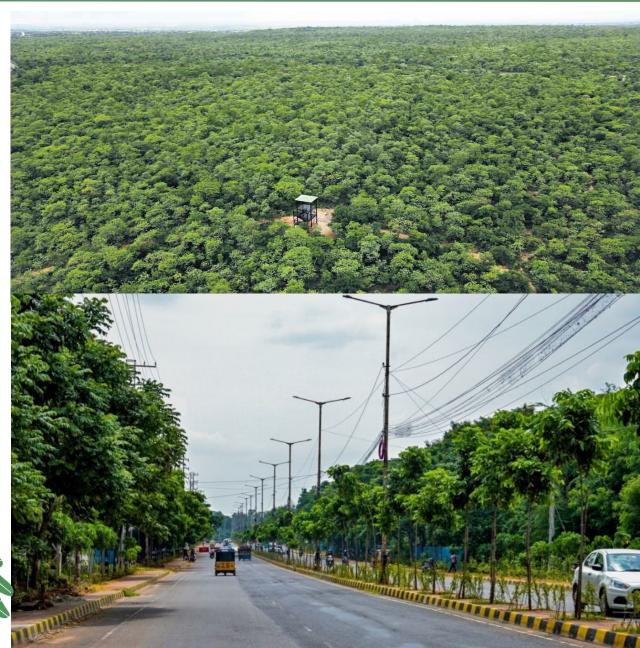


Bio Diversity Conservation Efforts



- Lake Restoration
- Developing Tiny Forests
- Theme parks to attract butter flies & birds in lakes
- Implementation of WALTA Act
- Tree protection committee







Telanganaku Haritha Haram



- Percentage Forest Cover: 24.05%
- Telangana Ku Haritha Haram i.e. (Green Garland to Telangana State) is a large-scale tree-planting program in active collaboration with community organisations
- The program envisages increasing the tree cover from 24% to 33%

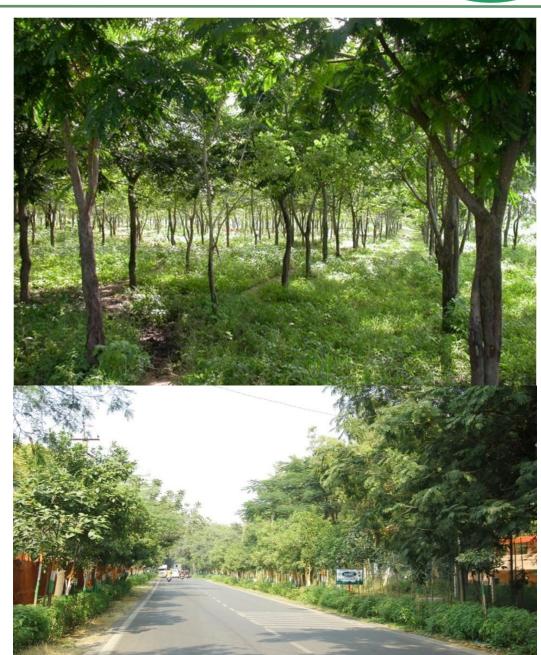




STRATEGY



- All sectors of the society are willingly participating in the planting programme.
- Student community is involved in a big way.
- Huge planting is taken up on farm bunds to augment the income of farmers.
- The biggest support is coming from the general public
- The state Government has amended the Panchayati Raj and Municipal Acts
- Nurseries have been established in each and every Gram Panchayat and Municipality



STRATEGY



- The planting material is given free of cost
- A provision for 10% Green Budget has been made
- Continuous funds are made available and so far more than Rs. 106350 million have been spent
- All the Forest Blocks in and around Cities and Towns are being developed as Urban Forest Parks







Quality Planting Stock



- Success of Plantations depend on quality nursery stock
- Total 14,864 nurseries are established in the state.
- 600 Nurseries in Hyderabad









14,864 nurseries have been established in the State











Few Glimpses of Transformation







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Lung Spaces created in Colonies







Densification of Parks through Tree Planting



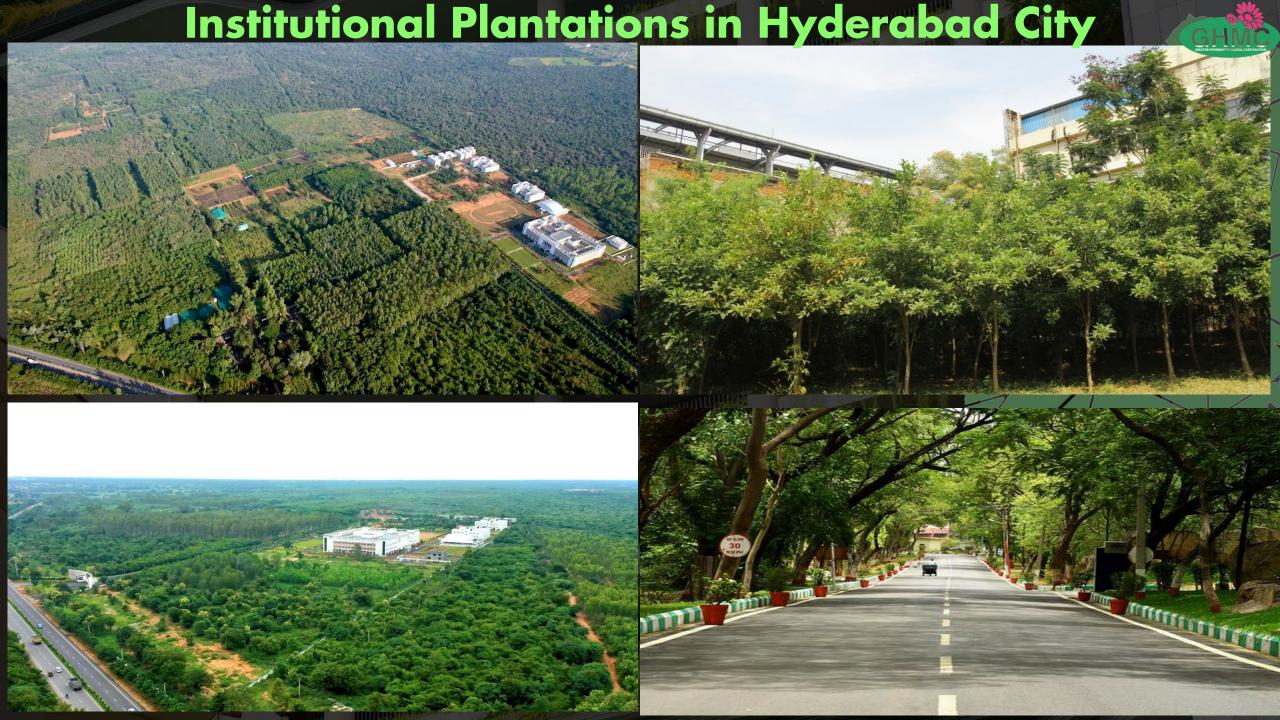




Building Forests within the City



• A Yadadri model concept is developed on the lines of Miyawaki method to develop tiny forests within the colonies to act urban lung spaces. Such plantations are developed in 50 locations.





Greenbelts along roadways



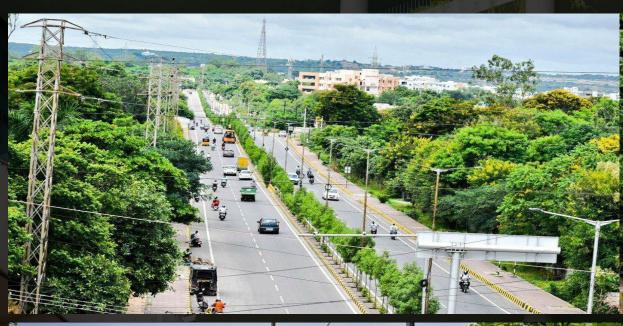
- Hydrocarbon related emissions and particulate matter are the major pollutants on the roadside.
- The greenery would help in reducing Air, Noise and Dust pollution, provides bio-aesthetic environment to the commuting public.
- The plantation will be in multiple rows along National Highways.
 - Single rows in case of Internal roads



Roadside Plantations

Road Medians in the City











Greenery along Link Roads & Radial Roads





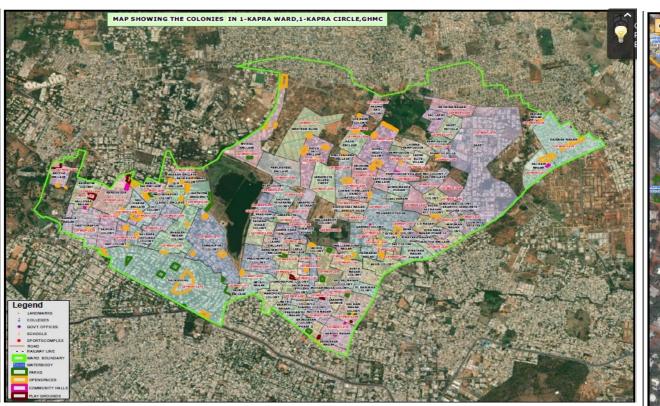
1,00,691 Kilometers/ 62,566 miles of roadside plantation taken up throughout the state Warangal Highway



Inch by Inch Colony Plantations



- There are 4846 colonies in GHMC area.
- Concept is to take the colony as the smallest unit and take up plantation in every available space of the colony to saturation level & declare the colony as saturated for plantation.









•GIS Layers for all 4846 Colonies

Colony wise Green
 Cover Percentage

•Identification of Areas for planting

•Colonies vitaless
green cover taken on priority

Residential Colony Plantations



PLANTATIONS IN HYDERABAD CITY

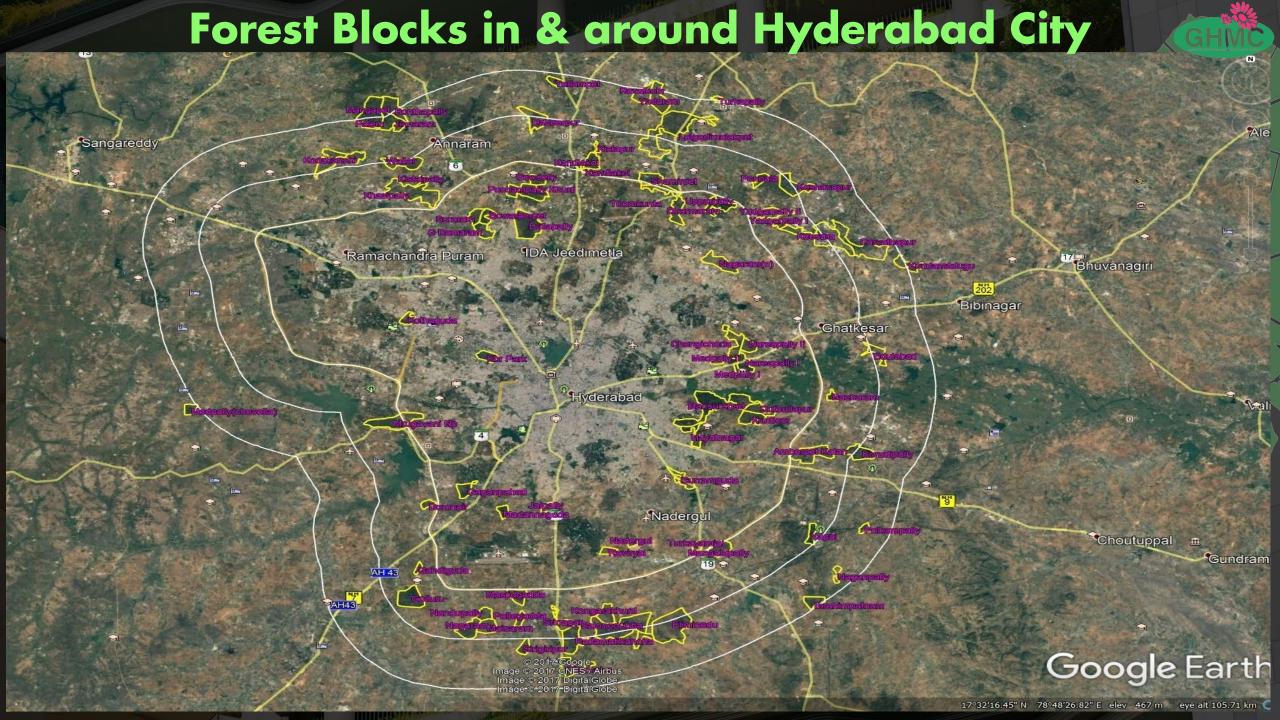














2nd World Forum on Development of Urban Forest Parks GHMC



- To provide adequate lung spaces to the citizens living in and around areas by developing forest blocks.
- Provide healthy living environment
- To contribute to the growth of smart, clean green, sustainable and healthy city.
- Forest Blocks in 129 Locations with Area: 1,60,661 acres
- Urban Forest Parks in 59 Locations
- Conservation Blocks in 70 locations.

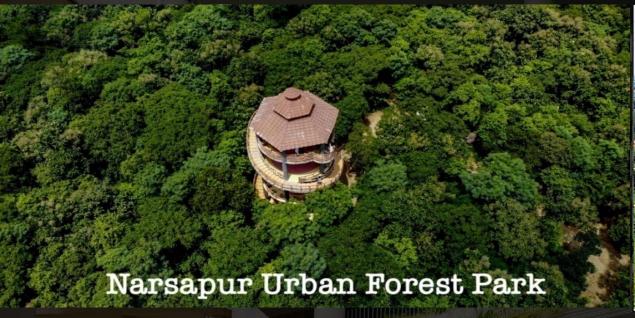




Urban Forest Parks













Greenery in Vaikunta Dhamam







Eco-friendly crematorium site were developed for public service by keeping it in a clean and efficient condition for the smooth conduct of cremations of the departed souls.





Telangana Haritha Nidhi



- So far Rs. 363.4 millions has been deposited in Telangana Green Fund
- Contributions from the salaries of employees working for State and Public Representatives
- For all issue & renewal of trade licences from all work contracts
- From students one time at the time of admission
- Haritha Nidhi was aimed at bringing a sense of participation among citizens of the State



Telangana Municipal / GHMC Act- 2019

- Specialized Urban Forestry wing & Green Cells
- (5) years Green action plan
- Green Budget of 10%- will be obligatory and will be treated as charged provisions in the budget
- One nursery in every ULB to cater the seedlings
- Responsibility on Public representatives-the ward member shall be disqualified and removed for less survival of plants
- The layout owner shall reserve 10% of the land towards open space for parks
- Certain number of trees shall be planted in the open area in the plot where building is being constructed

Participation by Public Representatives









Participation by Stake Holders









Participation by Students









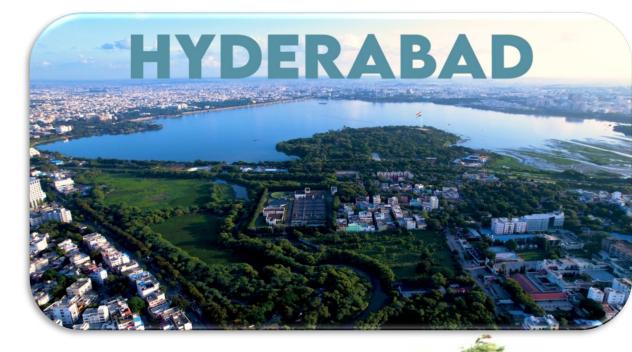




City Biodiversity Index



- In 2012, the Greater Hyderabad Municipal Corporation (GHMC) administered the CBI within Hyderabad city.
- In this exercise the city scored 36 points out of a total 92 points.
- GHMC updated it in 2021
- City has secured 57 out of 92 points.





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REPORTS

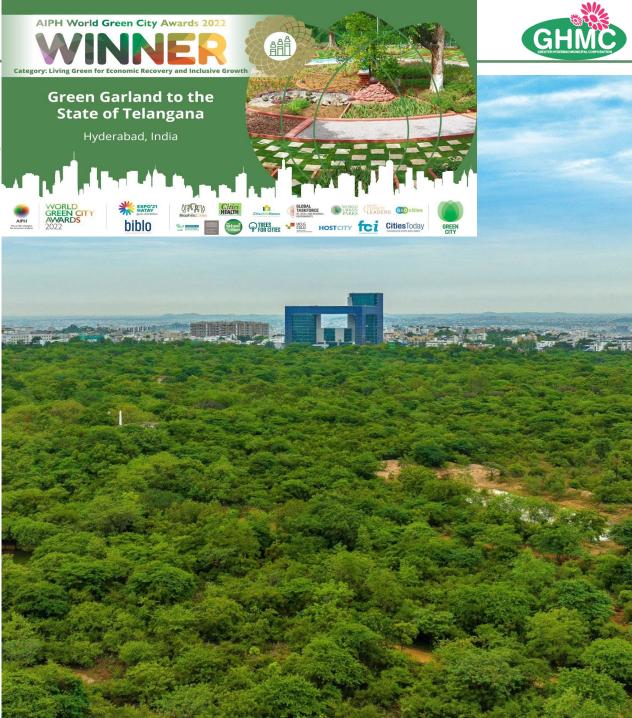
- As per India State of Forest Report 2021 (ISFR) Hyderabad city has gained forest cover with 147% in last decade from 12.80 Sq. Miles to 31.59 Sq.Miles.
- Air Quality Index (AQI) during 2015 was as high as 159 at some locations
- In 2022 the pollution levels are decreased compared to 2015 with AQI below 100.





AWARDS

- The Hyderabad City has been recognized as TREE CITY by Arbor Foundation & FAO for consecutive years 2020 & 2021
- The City of Hyderabad has bagged the prestigious World Green City Award 2022' by AIPH



2nd World Forum on Urban Forests

Hon'ble Chief Minister, Telangana State





WE MAY CREATE ANY AMOUNT OF WEALTH
BUT IT HAS NO MEANING
IF THERE IS NO BETTER ENVIRONMENT TO LIVE IN.
THEREFORE OUR FUNDAMENTAL DUTY IS TO
ENSURE OUR CHILDREN INHERIT CLEAN
ENVIRONMENT AND NATURAL FOREST WEALTH, TO
SUSTAIN LIFE ON PLANET IN THE TIMES TO COME











Gadwal Vijayalaxmi MAYOR, HYDERABAD



















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Lessons in Transformative Urban Nature



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A network of 97 cities led by Mayors

Directly representing 582 million residents



AFRICA: ABIDJAN – ACCRA – ADDIS ABABA – CAPE TOWN – DAKAR – DAR ES SALAAM – DURBAN (ETHEKWINI) – EKURHULENI – FREETOWN – JOHANNESBURG – LAGOS – NAIROBI – ISHWANE
CENTRAL EAST ASIA: BEIJING – CHENGDU – DALIAN – FUZHOU – GUANGZHOU – HANGZHOU – HONG KONG – NANJING – SHANGHAI – SHENZEN – QINGDAO – WUHAN – ZHENJIANG
EAST, SOUTHEAST ASIA & OCEANIA: AUCKLAND – BANGKOK – HANOI – HO CHI MINH CITY – JAKARTA – KUALA LUMPUR – MELBOURNE – QUEZON CITY – SEOUL – SINGAPORE – SYDNEY – TOKYO – YOKOHAMA
EUROPE: AMSTERDAM – ATHENS – BARCELONA BERLIN – COPENHAGEN – HEIDELBERG – ISTANBUL – LISBON – LONDON – MADRID – MILAN – OSLO – PARIS – ROME – ROTTERDAM – STOCKHOLM
TEL AVIV – WARSAW | LATIN AMERICA: BOGOTÁ – BUENOS AIRES – CURITIBA – GUADALAJARA – LIMA – MEDELLÍN – MEXICO CITY – RIO DE JANEIRO – SALVADOR – SÃO PAULO – SANTIAGO – QUITO
NORTH AMERICA: AUSTIN – BOSTON – CHICAGO – HOUSTON – LOS ANGELES MIAMI – MONTRÉAL – NEW ORLEANS – NEW YORK – PHILADELPHIA – PHOENIX – PORTLAND – SAN FRANCISCO – SEATTLE
TORONTO – VANCOUVER – W ASHINGTON DC | SOUTH & WEST ASIA: AHMEDABAD – AMMAN – BENGALURU – CHENNAI – DELHI – DHAKA – DUBAI – KARACHI – KOLKATA – MUMBAI

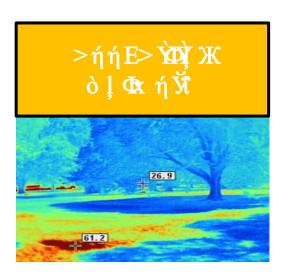


C40 Networks supporting Urban Adaptation















C40

CITIES

Health and wellbeing:
Give space back to people
and nature, rethink and
reclaim our streets, clean
our air and create liveable,
local communities



Action: Build with nature

We will prioritise nature-based solutions (such as parks, green roofs, green walls, blue infrastructure and permeable pavements) to help reduce the risks of extreme heat, drought, flooding and vector- and water-borne disease while improving liveability and increasing physical and mental health.

C40 Urban Nature Accelerator

Making our Cities Greener and More Resilient

To protect our communities from climate risk and help meet the goals of the Paris Agreement while improving overall health and wellbeing, our cities pledge to increase and enhance nature in our urban environments that reduces climate risk and vulnerability, supports wider ecosystem services, and is equitably distributed and publicly accessible, by 2030."

The objectives of this declaration are to set inclusive and equitable targets to develop living, climate-ready, and crisis-prepared cities.







41 Signatories Amman Athens Austin Barcelona Berlin Bogotá Buenos Aires Chennai Copenhagen Curitiba Dhaka North Dhaka South Delhi Durban Freetown Guadalajara Haifa (non C40) Karachi Lim a London Los Angeles Me de llín Milan Montreal Mumbai New Orleans Paris Quezon City Ouito Rio de Janeiro Rome Rotterdam Salvador San Francisco San Paulo Seattle Stockholm Sydney Tel Aviv Tokyo Toronto

PATHWAY 1 QUALITY TOTAL COVER

Heat & Water related risk



30-40% of the total built-up city surface area is:
a.) **Green spaces** (e.g., street trees & urban forests, parks, building integrated vegetation)
and/or

b.) Permeable spaces (e.g., pavements, infiltration trenches, swales, detention basins, regenerative urban agriculture)

Which favours protecting and restoring biodiverse and climate resilient ecosystems

PATHWAY 2 EQUITABLE SPATIAL DISTRIBUTION

Accessibility and connectivity



70% of the city population has access to a fit for purpose green or blue space within 15 minutes7 – equitably prioritised to maximise accessibility and connectivity to nature for the most vulnerable



Signatories

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C40 Urban Nature Accelerator Requirements

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- Make nature goals public & publicly report annually on progress
- Develop support and skills building program mes for green jobs
- Develop a process for involving vulnerable and marginalized communities
- Map current and expected climate risks and vulnerability
- Conduct a gap analysis and mapping to show where new and improved greening is needed
- Accelerate action to address governance
 barriers to implementation
- Mobilize access to investments and resources

FIVE YEARS COMMITMENTS

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SNAPSHOTS OF URBAN NATURE

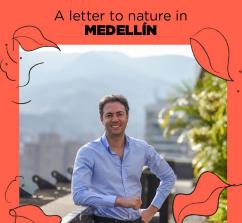


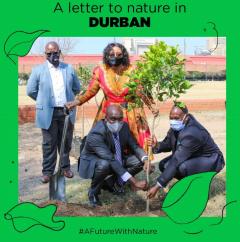
#AFutureWithNature is possible, if we make it a priority today.

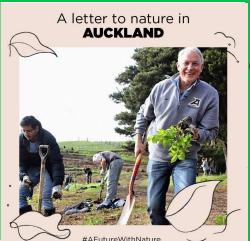
Together, we can create cities that are greener, healthier and more resilient.













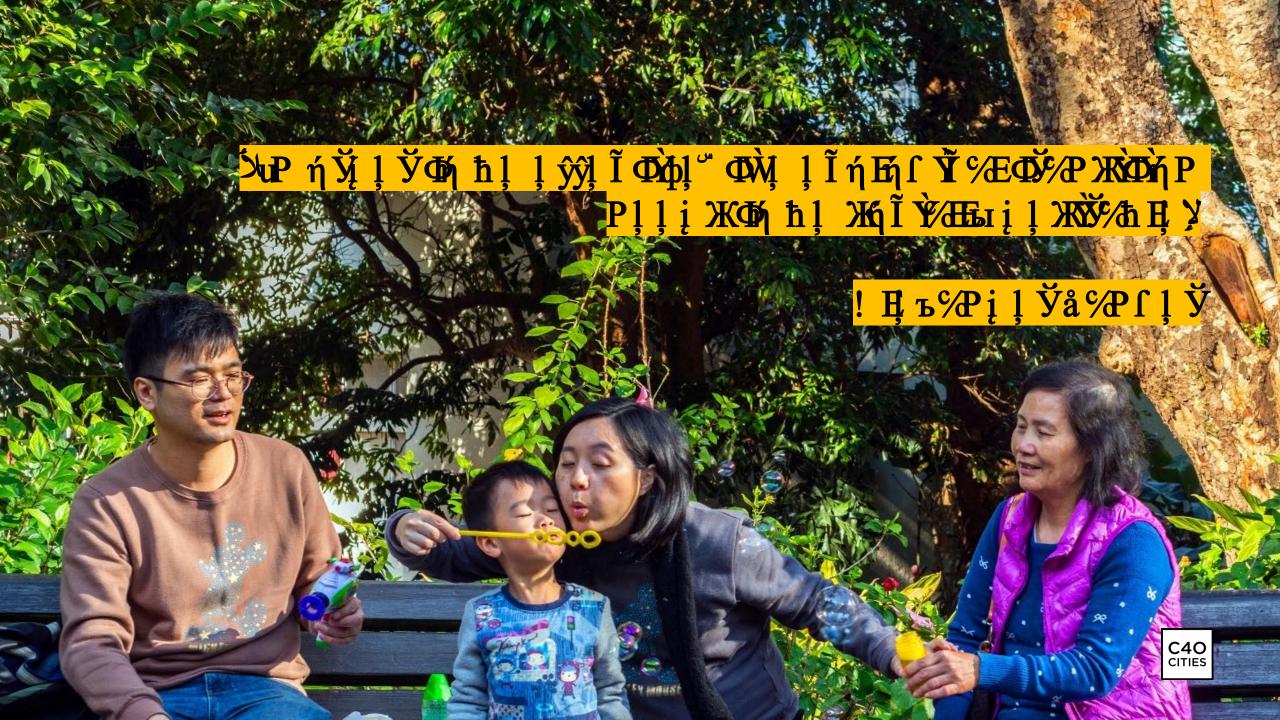












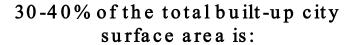
Signatories

Amman Athens Austin Barcelona Berlin Bogotá Buenos Aires Chennai Copenhagen Curitiba Dhaka North Dhaka South Delhi Durban Freetown Guadalajara Haifa (non C40) Karachi Lim a London Los Angeles Medellín Milan Montreal Mumbai New Orleans Paris Quezon City Ouito Rio de Janeiro Rome Rotterdam Salvador San Francisco San Paulo Seattle Stockholm Sydney Tel Aviv Tokyo Toronto

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PATHWAY 1: QUALITY TOTAL COVER

Heat & Water related risk



Green spaces

through street trees & urban forests, parks, gardens, building integrated vegetation



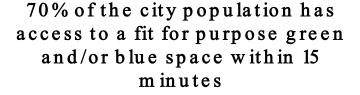
and/or;

Permeable spaces

through green roofs, roads, pavements, green ground, in filtration trenches, swales, detention basins, regenerative urban agriculture

PATHWAY 2: EQUITABLE SPATIAL DISTRIBUTION

Accessibility and connectivity



Equitably prioritised to maxim ise connectivity and accessibility to nature for the most vulnerable









COP15 reaches historic agreement to protect biodiversity

An agreement has been reached to protect 30% of the planet's land and 30% of its ocean by 2030, among a host of new targets



The New Hork Times

Nearly Every Country Signs On to a Sweeping Deal to Protect Nature

Roughly 190 nations, aiming to halt a dangerous decline in biodiversity, agreed to preserve 30 percent of the planet's land and seas. The United States is not officially a participant.

MONTREAL, Quebec — Roughly 190 countries early on Monday approved a sweeping United Nations agreement to protect 30 percent of the planet's land and oceans by 2030 and to take a slew of other measures against biodiversity loss, a mounting under-theradar crisis that, if left unchecked, jeopardizes the planet's food and water supplies as well as the existence of untold species around the world.



The Global Biodiversity Framework is adopted at COP 15. Photo by CBD

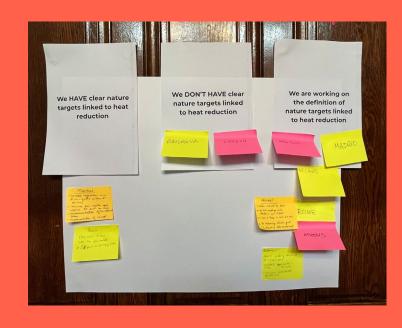


NEWS ARTICLE | 21 June 2023 | Directorate-General for Environment

Increasing tree coverage to 30% in European cities could reduce deaths linked to urban heat island effect

Issue 602: The cooling effect of trees is well known, but no study has so far aimed to quantify how many premature deaths might be prevented through this ecosystem service.





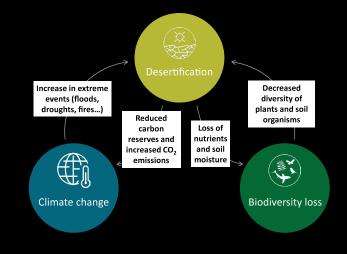


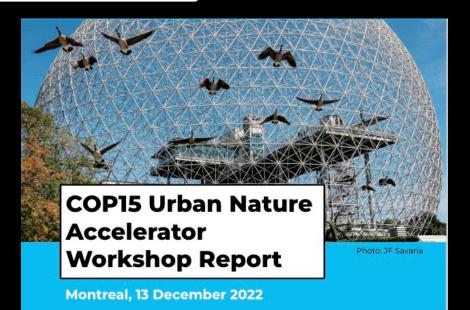




Aligning the Rio Conventions



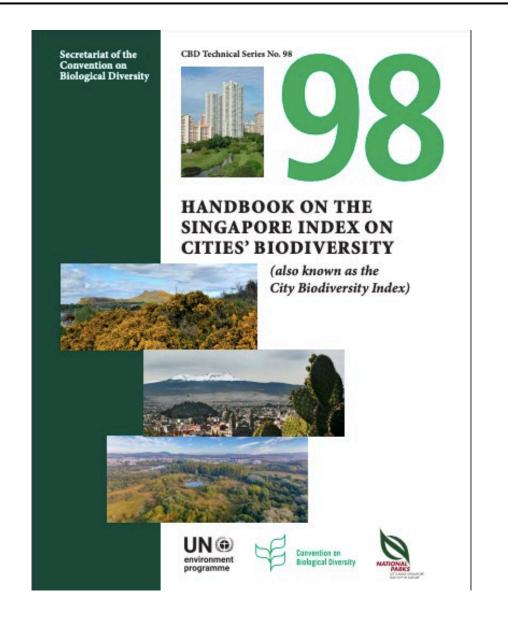




Session	Challenge Question	Seeds for Discussion
Nature As Urban Culture	How do we support a public cultural shift to prioritize nature in cities?	Tokyo Toronto
Reconciling Biodiversity, Climate Risk and Equity in our Cities	Are our climate risk reduction, biodiversity and equity goals in competition?	San Francisco Paris Los Angeles
15 minute one-on-ones	Bilateral meetings between cities	
A Natural Economy: Finance and Green Jobs	How can we build the value of nature into the economies of our cities?	Montreal Freetown



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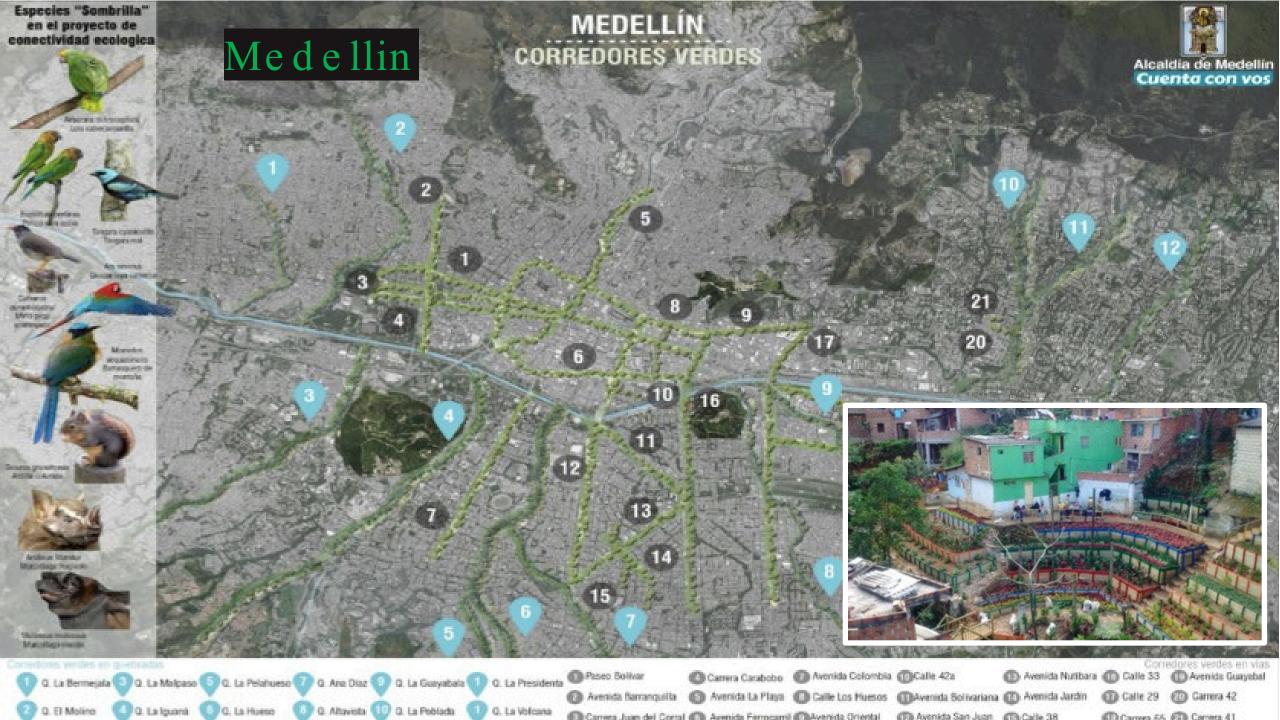




















Montreal's Adaptation Budgeting Methodology

C40 City Clinic May 31st 2023

Nicolas Dedovic, Acting Head of Division, Office of Ecological Transition and Resilience

Marie-Ève Marquis, ing., M. Env. Office of Ecological Transition and Resilience







Melbourne's Rapid Landscape changes











Significant parks





Small open spaces





Central city streets





Local neighbourhoods











Overall

23% loss in 10 years 39% loss in 20 years

Heritage Landscapes

35% loss in 10 years 58% loss in 20 years

Useful Life Expectancy

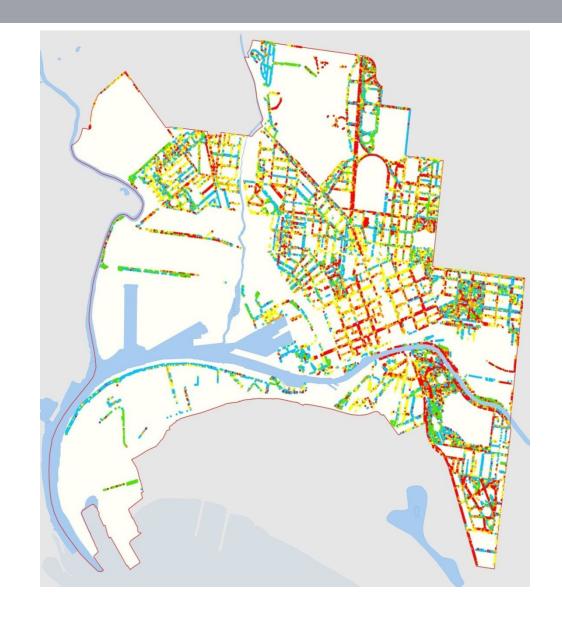
< 10 years</p>

31-60 years

11-20 years

61+ years

21-30 years





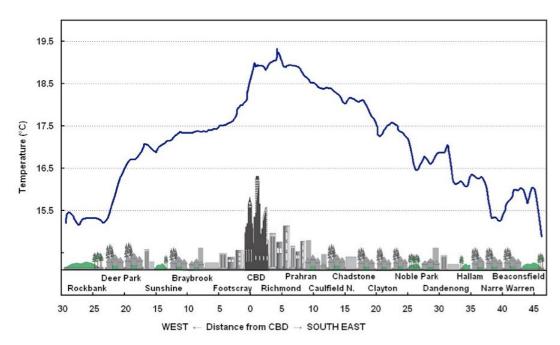
City of Melbourne Urban Forest Strategy 2012-2032

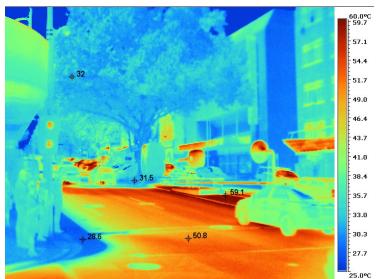


- > 80,000 public trees
- > \$800 million value
- > Targets:
 - Increase canopy cover by 40%
 - Increase tree species diversity
 - Improve vegetation health
 - Improve soil moisture and water quality
 - Inform and consult the community

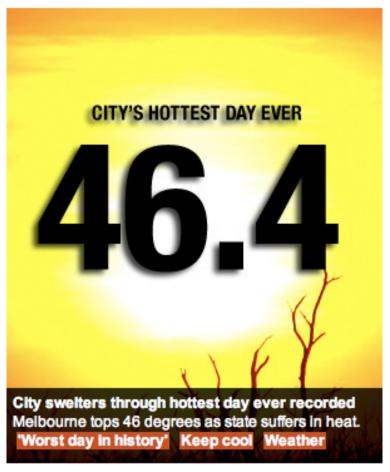


Climate and biodiversity emergency

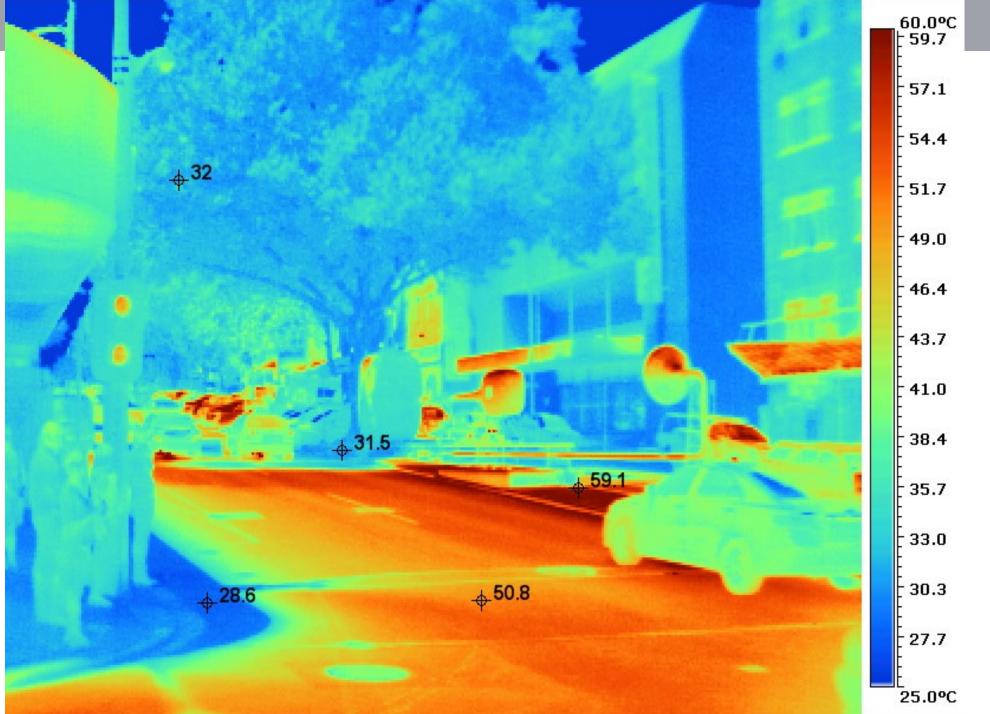




4:22PM Saturday February 07, 2009









Urban Forest Precinct Plans: ten year review

Key successes:

- Evidence-based and data driven
- Research partnerships
- Regular monitoring
- Engaged community

Improvement opportunities:

- 30% of priority streetscape are unable to be planted.
- More equitable distribution of planting
- More diverse community views
- Improved data inputs:
 - Biosecurity
 - Habitat connectivity
 - Heat vulnerability





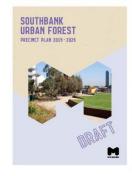














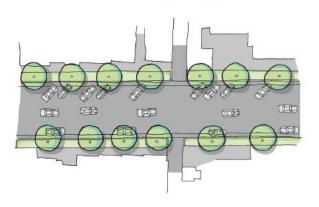






TREE CANOPY COVER

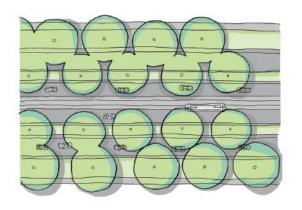
22% (2012)







40% (2040)









Creating species diversity



- Corylus colurna Turkish hazel (D)
- Ginkgo biloba Maidenhair tree(D)
- Liriodendron tulipifera Tulip tree(D)
- Ulmus procera English Elm (D)
- Quercus canariensis Algerian oak (D)
- Quercus cerris Turkey oak (D)
 - Platanus × acerifolia London Plane (D)

- Fraxinus pennsylvanica Cimmaron Ash (D)
- Liquidambar styraciflua American sweetgum (D)
- Melia azedarach White Cedar (D)
- Tilia cordata Small-leaved Lime (D)
- Tipuana tipu Rosewood (D)
- Zelkova serrata Green Vase (D)

LARGE EVERGREEN

- Corymbia citriodora Lemon-scented gum (E)
- Cinnamomum camphora Camphor tree (E)
- Corymbia maculata Spotted Gum (E)
- Ficus macrophylla Moreton Bay Fig (E)
- Ficus rubiginosa Port Jackson fig (E)
- Pinus pinea Umbrella pine (E)
- Schinus areira Pepper Tree (E)



Citizen science data collection











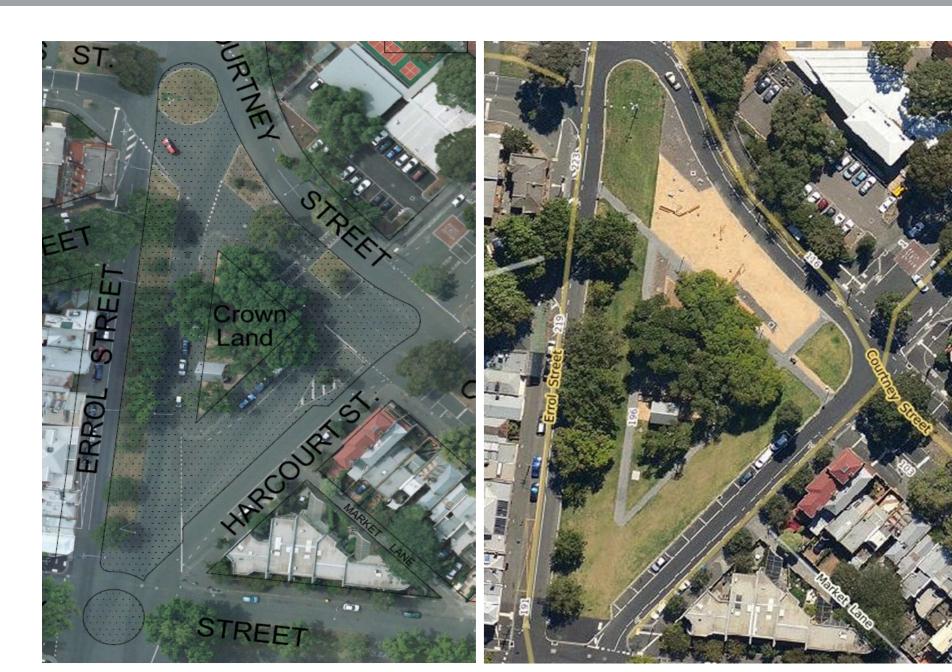












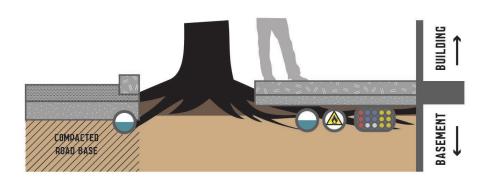


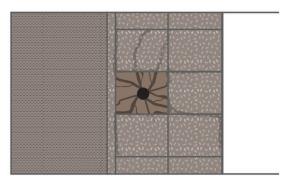


Contested urban space and hostile growing environments



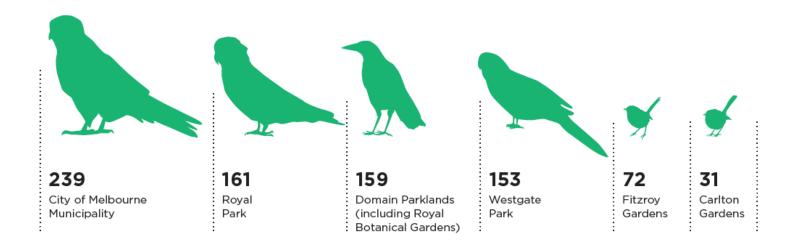


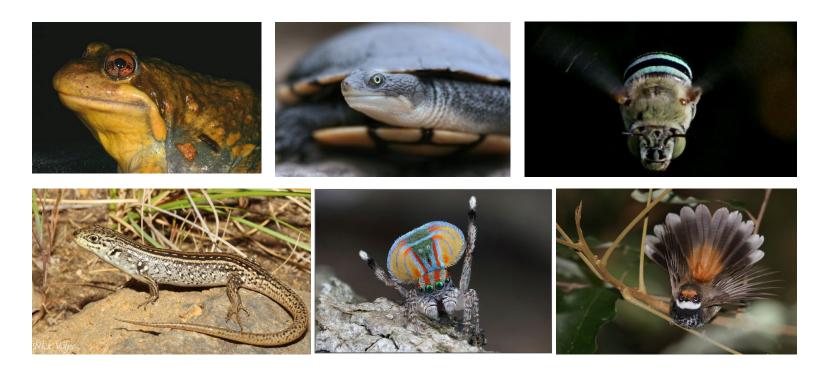






Climate and biodiversity emergency



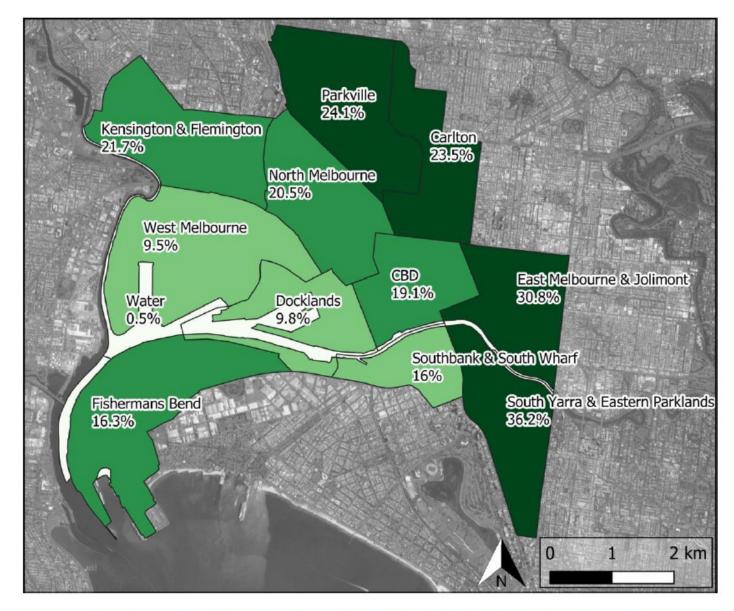




Development impacts







CITY OF MELBOURNE

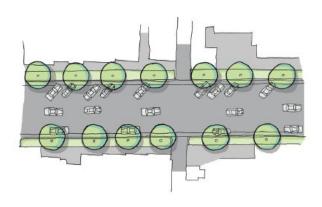
Figure 11: Thematic map showing canopy cover as a percentage of public land within precinct area. The darker green indicates higher relative canopy cover.



Tree canopy in streets

TREE CANOPY COVER

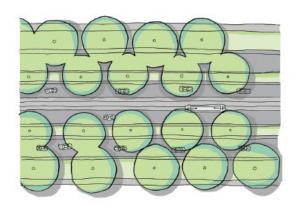
22% (2012)







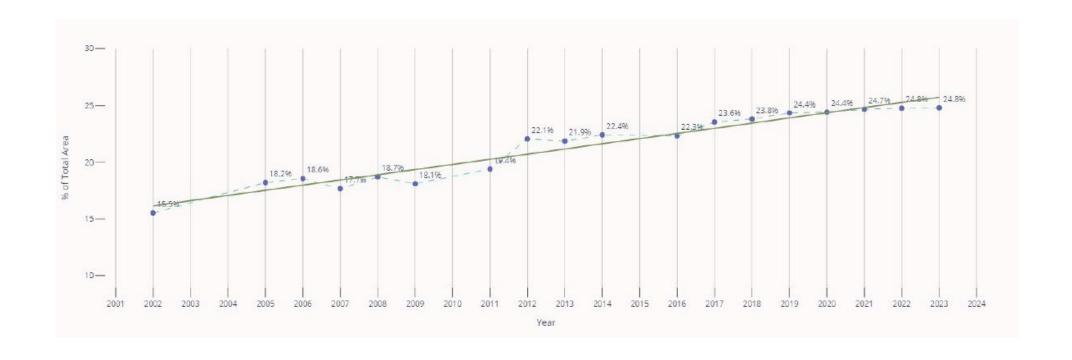
40% (2040)





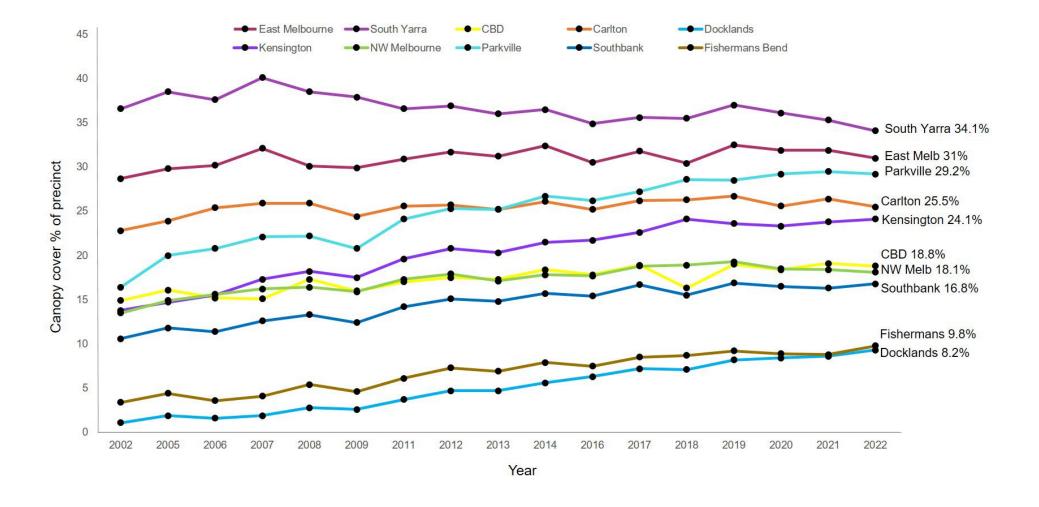








Canopy cover distribution





Example: Canopy uplift program

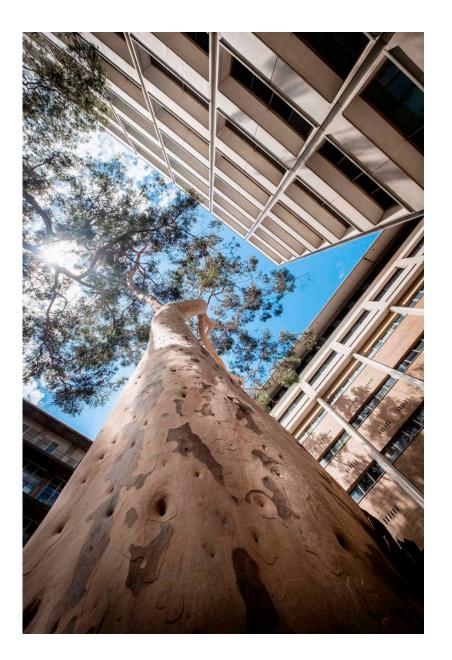






Tree Policy update in 2021:

- Pruning rules clarified for sightlines and advertising signage
- Pruning fees introduced
- Updated tree valuation method, includes higher values for:
 - Habitat corridors
 - Indigenous and native trees
 - Trees in priority planting areas
 - Social cost of carbon





Canopy replacement ratios



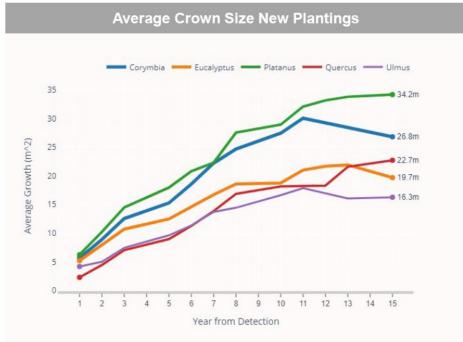


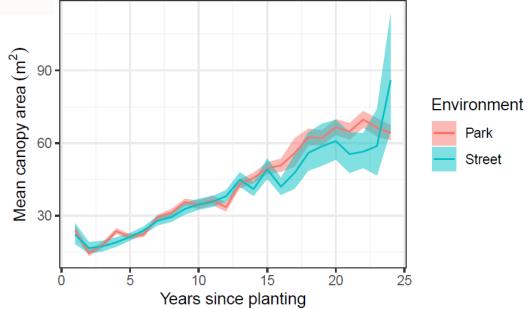
Protecting our trees



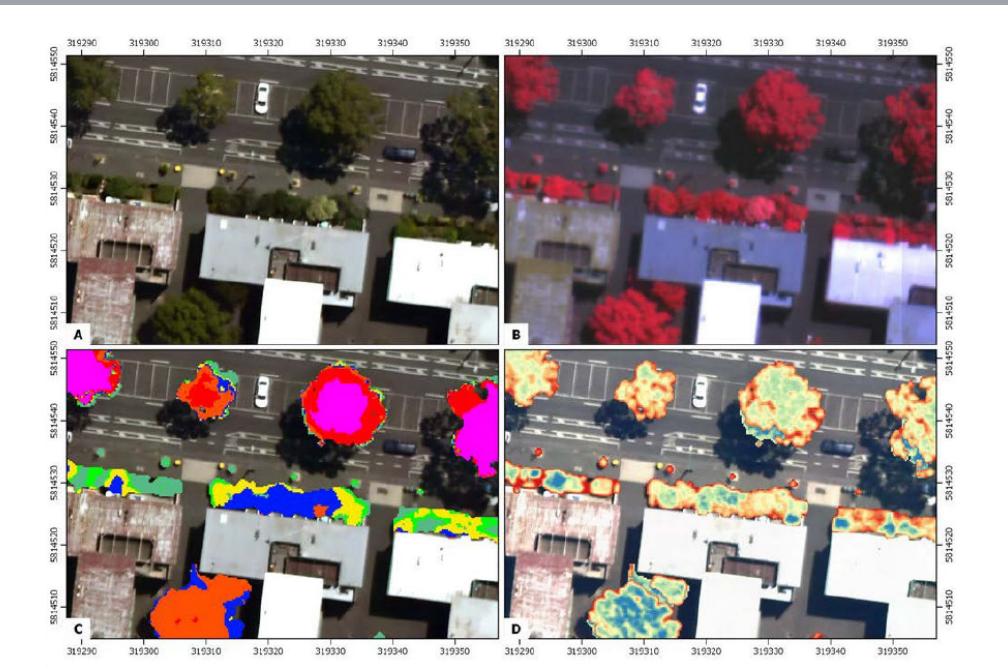


Growth modelling

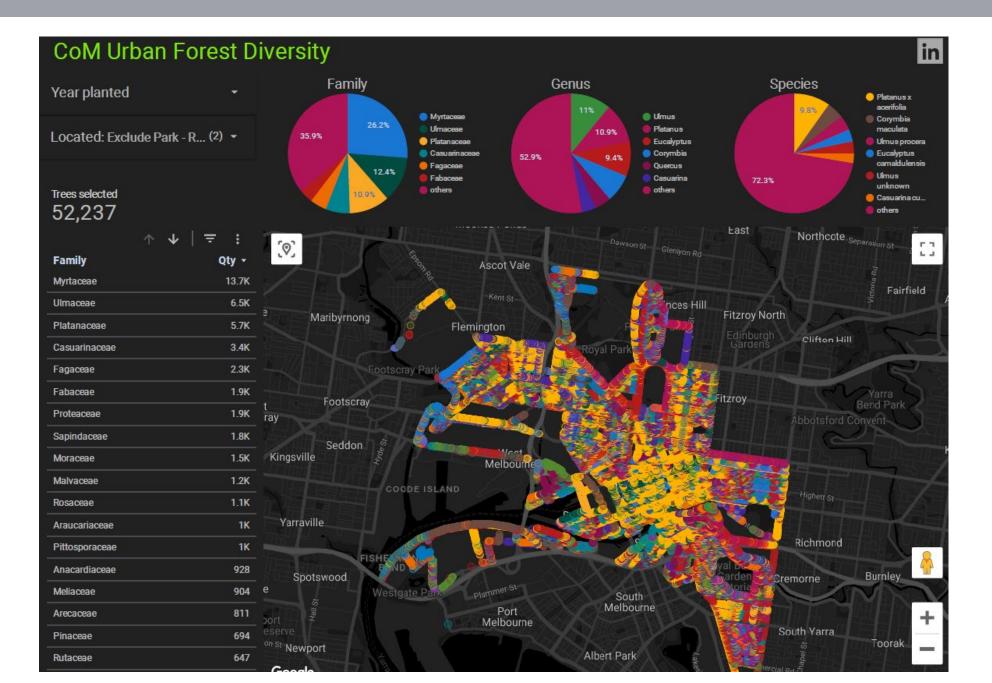






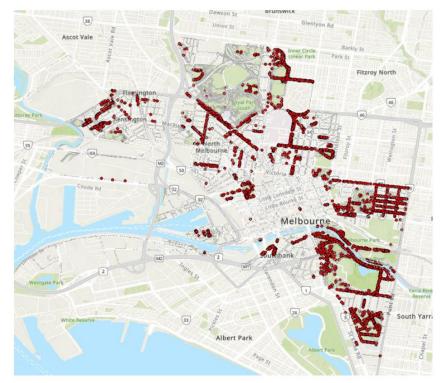




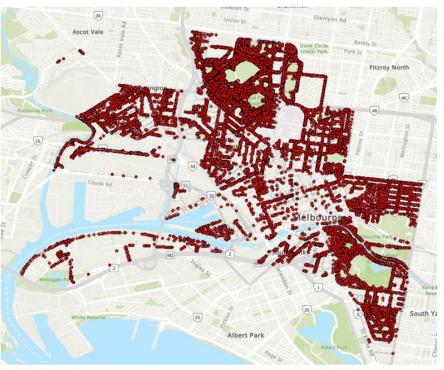




Monitor and mitigate biosecurity risks

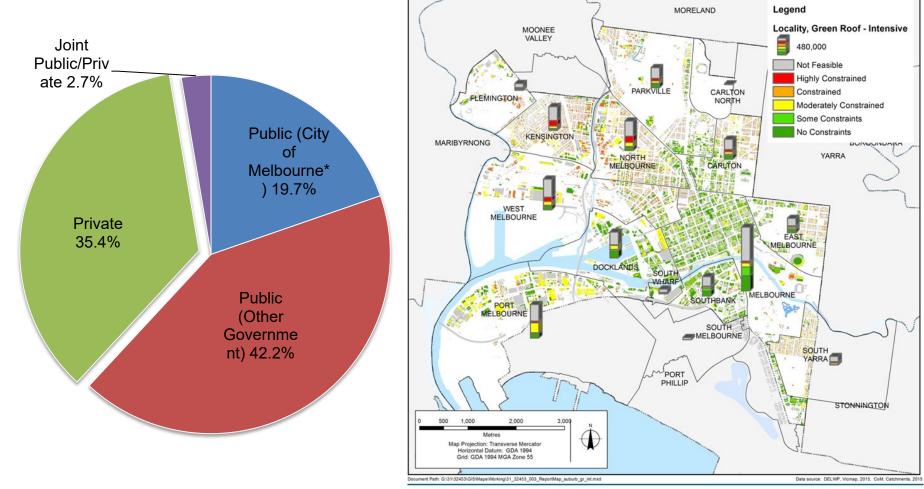


Dutch Elm Disease



Spongy Moth





880 ha of rooftops

150 ha of useable vertical space for greening



Urban Forest Fund: Melbourne Skyfarm









Other projects









Exceptional Tree Register

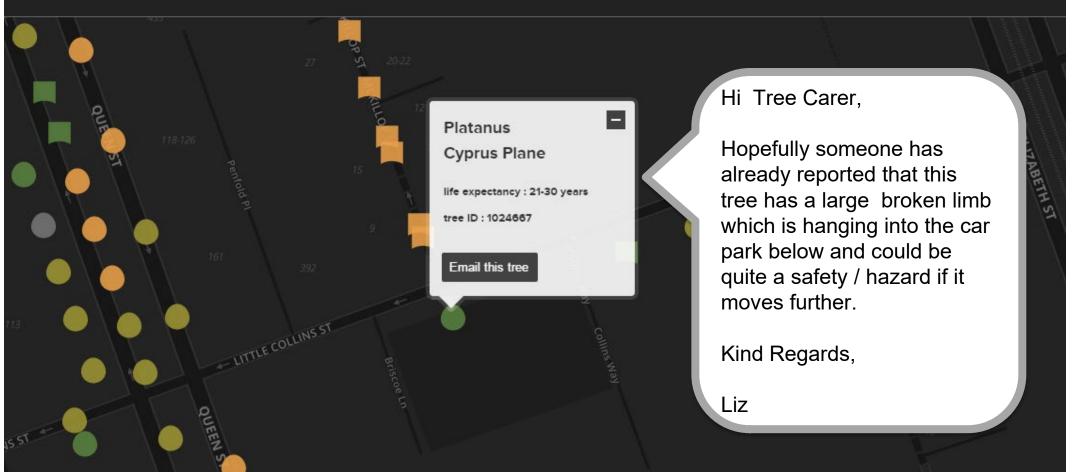




- 200+ trees protected by Environmental Significance Overlay
- Trees nominated by the public and must be on private property
- Permits required to undertake any works on or around exceptional trees



Individual tree data for City of Melbourne trees is presented below. **Pan** and **Zoom** into different area Melbourne, **click** on tree symbols to reveal details, and **select** between different locations and filters.





Love letters to trees



Dear London,
I am saddened to see that your
life expectancy is only around
five years.

I am also saddened to see that you have been labelled as a 'Plane Tree' - I do not think you are plane at all, in fact I think the way you wear your bark is quite alluring.

Meg



Love letters to trees



Hey Tree 1066821, what stunning view you have across the Yarra from your home at The Arbory Eatery.

The view was so good, I had to sketch it.

Enjoy your portrait.

Happy Easter.





Canopy Uplift Program



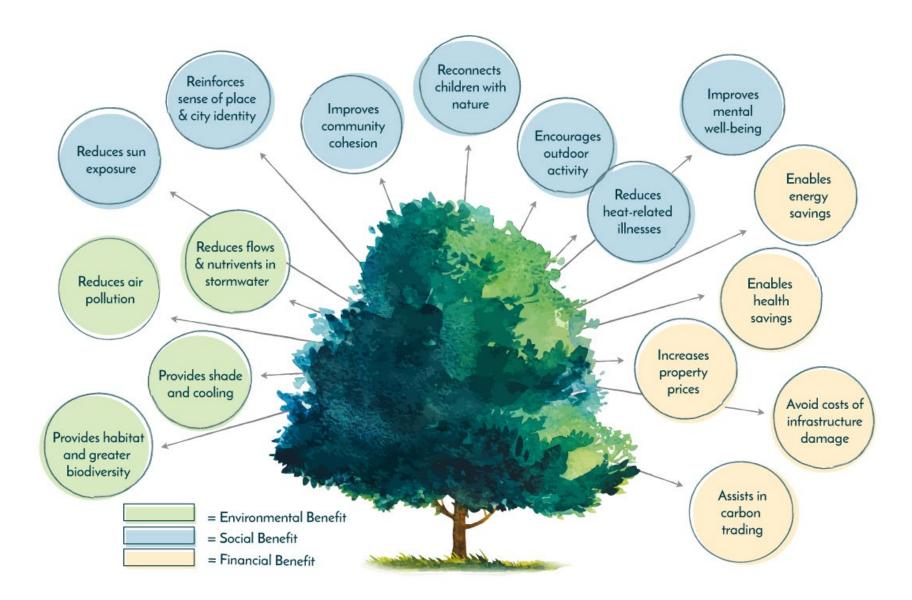




Tree health monitoring









Kensington 24.1% canopy

4195 trees planted since 2012 58% in parks, 32% on streets 64% other 36% major genera 21 streetscapes completed

NW Melbourne 18.1% canopy 8797 trees planted since 2012 46% in parks, 54% on streets 69% other 31% major genera 74 streetscapes completed

Docklands 9.3% canopy

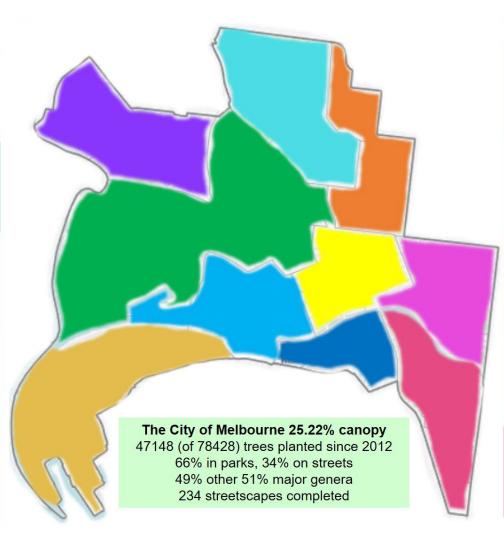
5240 trees planted since 2012 62% in parks, 38% in streets 60% other 40% major genera 7 streetscapes completed

Southbank 16.8% canopy

1397 trees planted since 2012 36% in parks, 74% on streets 56% other 44% major genera 9 streetscapes completed

Fishermans 9.8% canopy

1646 trees planted since 2012 7% in parks, 93% on streets 45% other 55% major genera 8 streetscapes completed



Parkville 29.2% canopy

15692 trees planted since 2012 92% in parks, 8% on streets 36% other 64% major genera 13 streetscapes completed

Carlton 25.5% canopy

3500 trees planted since 2012 40% in parks, 60% on streets 54% other 46% major genera 35 streetscapes completed

Central City 18.8% canopy

1304 trees planted since 2012 2% in parks, 92% on streets 32% other 68% major genera 32 streetscapes completed

East Melbourne 31% canopy

3522 trees planted since 2012 70% in parks, 30% on streets 57% other 43% major genera 15 streetscapes completed

South Yarra 34.1% canopy

1855 trees planted since 2012 50% in parks, 50% on streets 41% other 55% major genera 15 streetscapes completed



2nd World Forum on Urban Forests 2023



